

**Agreement By and Between the Nisqually Indian Tribe, Northwest Pipeline Corporation, Washington Department of Ecology and Washington Department of Fish and Wildlife**

The Nisqually Indian Tribe ("Tribe"), the Northwest Pipeline Corporation ("Northwest"), the Washington State Department of Ecology ("Ecology") and Washington State Department of Fish and Wildlife ("Fish and Wildlife") (collectively "the Parties") enter into the following Agreement regarding compensatory mitigation for wetland and in-water environmental impacts related to the Fort Lewis Loop portion of the Northwest Pipeline Corporation's Capacity Replacement Project.

**CONTRACTS OFFICE**

SEP 21 2005

**SECTION I**

**A. Purpose**

WASHINGTON DEPARTMENT OF FISH & WILDLIFE

This Agreement between the Parties establishes, upon signature of all the Parties, a Fund for the restoration and acquisition of wetland and riparian habitat in the Nisqually River Basin to mitigate for some of the anticipated impacts from the construction of the "Fort Lewis Loop" portion of the Capacity Replacement Project (FERC Docket Number CP05-32-000, -001). Mitigation implemented through the Fund will compensate for anticipated in-water impacts that result from the Nisqually open-cut crossing and for conversion and temporal impacts to wetland resources along the Fort Lewis Loop that require mitigation as a condition of the 401 Water Quality Certification and the respective Pierce and Thurston County Shoreline Permits. This Agreement is separate from and in addition to the site specific restoration and enhancement of stream crossing impacts identified in Northwest Pipeline's *Waterbody Crossing Mitigation Plan*, dated April 2005. The amount of the Fund established by this Agreement is \$550,000.00. The funds shall be held in an interest-bearing FDIC-insured account by the Tribe and the Fund shall be administered by the Tribe as set forth below in sections Section I C. The specific impacts and compensatory mitigation to be accomplished through this Agreement are identified in Section II of this document. By this Agreement, the Parties resolve these issues that require mitigation to offset identified unavoidable impacts of the Northwest Pipeline Capacity Replacement Project in the "Fort Lewis Loop" for those identified unavoidable impacts known or reasonably anticipated at the time the Agreement is executed. The Parties hereto acknowledge that this Agreement shall bind the Applicant, Regulatory Agencies, and the Tribe, but not other interested non-party entities.

**B. Scope**

The Fund shall be used to compensate for unavoidable impacts to aquatic resources associated with the open cut crossing of the Nisqually River and is meant to supplement those mitigation actions that are proposed for the Nisqually River crossing in the *Waterbody Crossing Mitigation Plan* and those specific restoration or enhancement requirements that may be identified in the Hydraulic Project Approval issued by Fish and Wildlife. In addition, this Agreement compensates for specific wetland impacts in conformance with Ecology standards and by

consensus of the Board that is created by this Agreement. The mitigation shall occur in the Nisqually Basin. Specifically, the mitigation properties to be acquired or projects to be implemented shall be in Thurston and Pierce Counties.

C. Administration, Board and Oversight Committee

1. Fund Administration: The Fund shall be administered by the Nisqually Indian Tribe, Natural Resources Department ("TNR"). A three-member Board (Board) shall oversee expenditures from the Fund. The Board shall consist of the following:

- 1 member from Nisqually Indian Tribe, Natural Resources Department
- 1 member from Washington Department of Ecology
- 1 member from Washington Department of Fish and Wildlife

The Nisqually Indian Tribe shall appoint a Fund Administrator. Specific duties of the Administrator are set forth below in subsection 4.

In addition, a three-member Oversight Committee shall advise the Board. The Oversight Committee shall consist of the following:

- 1 member from Army Corps of Engineers Seattle District Office
- 1 member from Thurston County Development Services Department
- 1 member from Pierce County, Planning and Land Services – Resource Management Program

All review of properties, meetings, reports and other materials related to administration of the Fund and selection of property or projects suitable to meet the required mitigation will be shared with members of the Board and the Oversight Committee prior to finalizing any purchase agreements or expenditures of funds.

Administrative costs of the Board shall not exceed 1% annually of the corpus of the Fund. The "corpus" of the Fund shall be defined as the monies deposited by Northwest to the Tribe in the amount set forth in Section I. A. Strict accounting procedures shall apply and bi-annual accounting reports shall be submitted to the Board no later than January 31 and July 31 of each year. The Board and Oversight Committee shall meet as often as needed, but at least once every six (6) months, to discuss mitigation expenditures from the Fund. The meetings can occur by telephone or in person. If in person, the Board shall meet at TNR offices, located at Nisqually Reservation, Olympia, or where otherwise determined by majority of the Board and Oversight Committee.

2. Duties of Board: The role of the Board is to exhaust the corpus of the Fund on mitigation projects within the duration of this Agreement. The Board will endeavor with its best efforts to expend the corpus of the Fund. It shall be the duty of each member of the Board to consider properties brought forward as potential mitigation properties for acquisition. In similar fashion it shall be the duty of each member of the Board to consider any project proposed as mitigation. Generally, projects or properties will be identified by working with local land trusts

or other groups involved in watershed restoration in the local area. If a project is identified as the mechanism for implementing mitigation under this Agreement, there must be evidence that all applicable State, Federal, or Local permits required will be obtained prior to fund disbursement. The Board will take into consideration the comments of the Oversight Committee in making decisions about proposed projects or property acquisition. Property acquisition and projects shall be approved by a consensus of the Board. On-site review will be required from all Board members before final decisions to disburse funds may be made. The Board will assign mitigation credits for each acquisition or project.

3. **Duties of Oversight Committee:** The role of the Oversight Committee is to provide comments and participate in discussion of projects and properties under consideration. It is intended that all members of the Board and Oversight Committee will be present during discussions or site visits that lead to decisions regarding property purchase or project approval whenever possible.

4. **Duties of Administrator:** The role of the Administrator is to coordinate communication and implementation of this Agreement. Duties include managing funds; convening and recording meetings; preparing bi-annual reports for the Board and Oversight Committee; preparing and distributing reports related to mitigation properties, projects, maintenance, or monitoring to the Board and Oversight Committee; recording covenants and other legal documents necessary to implement this Fund; and, other duties as deemed important for successful implementation of this Agreement

#### **D     Duration**

1       The Fund shall exist for no longer than three (3) years from the date of final signature of this Agreement. The full amount of funds shall be received from Northwest within three (days) of the final signature of this Agreement

2.       At the end of three (3) years, any money remaining in the Fund, including any accrued interest, shall be returned to Northwest and a full accounting of the Fund expenditures and mitigation acquired will be made. A copy of the accounting shall be signed by the Board and provided to Northwest.

3.       If the mitigation required by the terms of this Agreement has not been accomplished by the time the Agreement terminates, a full accounting shall be made of: (1) expenditures from the Fund; (2) any funds remaining in the account; and, (3) mitigation achieved to date. A copy of the accounting signed by the Board and the corpus of the funds plus applicable interest shall be returned to Northwest.

### **SECTION II**

#### **A.     Summary of Impacts to be Mitigated Under this Agreement**

1.       The parties to this Agreement anticipate that the Fort Lewis Loop will have the following impacts that will be compensated for by off-site mitigation as described in this plan:

Unavoidable impacts to the Nisqually River and aquatic resources due to the open cut crossing, and conversion and temporal impacts to wetlands along the project corridor. The riparian and in-water impacts to aquatic resources mitigated under this Agreement are summarized in the following bullets and Table 1. The wetland impact quantities to be mitigated under this Agreement are based on the tables associated with field maps and titled '*Wetlands Impacted by Northwest Pipeline Corporation's Capacity Replacement Project, Revision 1 May 2005*', and are summarized in Table 2.

These identified unavoidable impacts will be mitigated through the mechanisms described in this Agreement:

- Impacts to aquatic resources that occur as a result of the open cut crossing of the Nisqually River.
- Impacts from new permanent easement area of 0.21 acres in the Nisqually River. (0.08 acres in Pierce County and 0.13 acres in Thurston County)
- Impacts from temporary extra work space of 0.35 acres within the Nisqually River (0.13 acres in Pierce County and 0.22 acres in Thurston County)
- Riparian impacts to 2.06 acres of forested area and 13.8 acres that is now or was historically an oak forest prairie.
- Permanent wetland conversion impacts related to new permanent pipeline easements through wetlands (0.02 acres in Pierce County)
- Temporal impacts to forested and scrub wetlands within existing easement, temporary extra workspaces, and temporary construction right-of-way (1.67 acres) (1.39 acres in Pierce County and 0.28 acres in Thurston County)
- There are no permanent wetland fill impacts identified for mitigation under this Agreement

**Table 1: Summary of Fort Lewis Loop Riparian and In-Water Impacts to be Mitigated Using This Agreement**

Type of impact	Total Acres Impacted	Pierce County	Thurston County
Impacts to in-water resources resulting from open cut crossing of the Nisqually River	Not quantified		
New permanent easement in river	0.21	0.08	0.13
Temporary extra work space in river	0.35	0.13	0.22
Riparian	15.86		



**Table 2: Summary of Wetland Impacts Mitigated by Fort Lewis Loop Alternative Agreement**

1) Permanent wetland conversion impacts associated with areas of new permanent easement impacting scrub-shrub and forested wetlands; and 2) Temporal impacts associated with scrub-shrub and forested wetlands that will be impacted during construction and re-vegetated with woody species on-site			
	<b>Acres Impacted</b>	<b>Pierce County</b>	<b>Thurston County</b>
1) Permanent Conversion from PSS or PFO to PEM associated with new permanent easement			
Cat II PSS	0.02	0.02	0
2) Temporal impacts to forested and scrub wetlands within existing easement, temporary extra workspaces, and temporary construction right-of-way			
Cat II PSS	0.22	0.22	0
Cat III PSS	0.20	0.02	0.18
Cat IV PSS	0.01	0.01	0
Cat II PFO	0.98	0.98	0
Cat III PFO	0.24	0.14	0.10
<b>Total Temporal Impacts</b>	<b>1.65</b>		
<b>Total Temporal and Conversion Impacts</b>	<b>1.67</b>	<b>1.39</b>	<b>0.28</b>

#### **B. Mitigation Standards**

1. Approach: The primary approach for accomplishing the required off-site compensatory wetland and riparian mitigation and compensation for in-water impacts to aquatic resources under this Agreement will be to use a strategy that focuses on purchase and preservation of a parcel(s) or implementation of a project that will meet the requirements set out in this document. This may be accomplished by a combination of strategies that include wetland and riparian preservation. It is also possible that part of the mitigation requirements may be met by restoration activities such as wetland re-establishment, or rehabilitation measures on a portion of a property proposed for preservation.

##### **Riparian**

2. Compensation for impacts to in-stream aquatic resources associated with the open cut crossing of the Nisqually River and for impacts of new permanent easement and temporary extra work space within the Nisqually River will be mitigated based on the specific opportunities that are present on the properties being purchased under this Agreement. The general principles described in this document will be used to evaluate the relative mitigation value for specific purchases, actions taken to restore functions, install large wood or other measures intended to

improve the functioning of the site purchased for mitigation purposes described under this Agreement. The amount of mitigation allowed for any action will be specifically identified by the Board for accounting purposes. If a property is purchased using money from a variety of funding sources, only that proportion of the property paid for by this fund can be identified as mitigation under this Agreement

3. Actions that may be taken to benefit Riparian and in-stream resources based on site specific opportunity include:

- i. Restoration of riparian forest
- ii. Conifer enhancement of deciduous forest
- iii. Placement of in-stream large woody debris
- iv. Preservation of riparian habitat
- v. Other site-specific restoration actions to be determined by the Board on a case-by-case basis.

#### Wetland

4. Compensatory Mitigation Ratios for Permanent Wetland Conversion Impacts: Compensatory mitigation ratios for permanent wetland conversion impacts to 0.02 acres of Category II wetland will be mitigated at a minimum ratio of 5:1 for preservation of the high quality wetlands, 10:1 for preservation of wetlands with intermediate function or 1.5: 1 for re-establishment or creation of wetland.

5. Compensation for Temporal Wetland Impacts: In addition to restoring the temporarily affected wetlands to their previous condition, the project will compensate for temporal impacts to scrub-shrub and forested wetlands according to the following guidance and ratios found in Table 3 and Table 8C-11.

The ratios for the temporal impacts to forested and scrub-shrub wetlands and conversion impacts are one-half of the recommended ratios for permanent impacts found in Table 8C-11, provided that the projects accomplishes the following measures:

- The project explains how hydric soil, especially deep organic soil, is stored and handled in the areas where the soil profile will be severely disturbed for a fairly significant depth or time.
- Surface and groundwater flow patterns are maintained or can be restored immediately following construction.
- Disturbed buffers are re-vegetated.
- Where appropriate, the hydroseed mix to be applied on re-establishment areas is identified.

6. Preservation of At-Risk, High-Quality Wetlands: Preservation of at-risk, high-quality wetlands. Acceptable sites for preservation include those that:

- Are important due to their landscape position
- Are rare or limited wetland types
- Provide high levels of functions

High quality wetlands will be those Category I wetlands based on the Revised Washington State Wetland Rating System (2004) (Ecology Publication # 04-06-025) that meet the definition of a high quality preservation site because they either: 1) represent a unique or rare wetland type; or, 2) are more sensitive to disturbance than most wetlands; or, 3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or, 4) provide a high level of functions.

When preservation involves high quality wetlands that meet the above criteria, ratios will range from 5:1 to 10:1 depending on the quality of the wetlands being impacted and the quality of the wetlands being preserved for mitigation of temporal or conversion impacts. Wetland preservation that does not meet any of these criteria but is crucial to an overall restoration strategy for improving or preserving ecosystem functioning in a particular location will be allowed at a ratio of 10:1 for temporal or conversion impacts.

7. Definitions:

The following definitions will be used in conjunction with Table 3 and Table 8C-11 to determine the relative ratio of wetland mitigation credit that will be allowed for different types of wetland restoration activities associated with a particular site.

**Restoration:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into:

**Re-establishment:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a **former** wetland. Re-establishment results in a gain in wetland acres (and functions). Activities could include removing fill material, plugging ditches, or breaking drain tiles.

**Rehabilitation:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a **degraded** wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres. Activities could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland.

**Creation (Establishment):** The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site where a wetland did not previously exist. Establishment results in a gain in wetland acres. Activities typically involve excavation of upland soils to elevations that will produce a

wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species.

**Enhancement:** The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention, or wildlife habitat. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these activities.

8. Compensatory mitigation should not result in the creation, restoration, or enhancement of an atypical wetland. An atypical wetland is defined as a wetland whose design does not match the type of wetland that would be found in the geomorphic setting of the proposed site (i.e., the water source(s) and hydroperiod proposed for the mitigation site are not typical for the geomorphic setting). In addition, any designs that provide exaggerated morphology or require a berm or other engineered structures to hold back water would be considered atypical. For example, excavating a permanently inundated pond in an existing seasonally saturated or inundated wetland is one example of an enhancement project that could result in an atypical wetland. Another example would be excavating depressions in an existing wetland on a slope that required the construction of berms to impound water.

**Table 3: Summary of Wetland Mitigation Ratios for Fort Lewis Loop Alternative Agreement**

<b>1) Permanent Conversion from PSS or PFO to PEM associated with new permanent easement</b>	<b>Acres Impacted</b>	<b>Mitigation Ratio for Preservation of a High Quality Wetland<sup>1</sup></b>	<b>Mitigation Ratio for Preservation of a wetland with intermediate functions.<sup>1,2</sup></b>	<b>Mitigation Ratio for Re-establishment or Creation<sup>3</sup></b>
Cat II PSS	0.02	5:1	10:1	1.5:1
<b>2) Temporal impacts to forested and scrub wetlands within existing easement, temporary extra workspaces, and temporary construction right-of-way</b>				
Cat II PSS	0.22	5:1	10:1	1.5:1
Cat III PSS	0.20	5:1	10:1	1:1
Cat IV PSS	0.01	5:1	10:1	0.75:1
Cat II PFO	0.98	5:1	10:1	1.5:1
Cat III PFO	0.24	5:1	10:1	1:1
<b>total temporal impacts</b>	<b>1.65</b>			
<b>Total impacts</b>	<b>1.67</b>			
<sup>1</sup> Mitigation ratios for conversion impacts and temporal impacts will generally range from 5:1 to 10:1 depending on the quality of the wetlands being impacted and the quality of the wetlands being preserved. The decision will be made on a case-by-case basis by the Board.				
<sup>2</sup> Wetlands identified with intermediate levels of functions that are proposed for preservation should have the potential to provide significant value to restoration project and preservation of aquatic resources due to position in the landscape and other characteristics. The ratio will be twice that identified as appropriate for preservation of a high quality wetland.				
<sup>3</sup> These ratios are 1/2 the recommended ratios for permanent impacts found in Table 8C-11 excerpted from <i>Wetlands in Washington - Volume 2. Guidance for Protecting and Managing Wetlands</i> (Ecology Publication # 05-06-008)				

Table 8C-11. Mitigation ratios for projects in western Washington.

Category and Type of Wetland Impacts	Re-establishment or Creation	Rehabilitation Only <sup>4</sup>	Re-establishment or Creation (R/C) and Rehabilitation (RH) <sup>4</sup>	Re-establishment or Creation (R/C) and Enhancement (E) <sup>4</sup>	Enhancement Only <sup>4</sup>
All Category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category II Estuarine	Case-by-case	4:1 Rehabilitation of an estuarine wetland	Case-by-case	Case-by-case	Case-by-case
Category II Interdunal	2:1 Compensation has to be interdunal wetland	4:1 Compensation has to be interdunal wetland	1:1 R/C and 2:1 RH Compensation has to be interdunal wetland	Not considered an option <sup>5</sup>	Not considered an option <sup>5</sup>
All other Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category I based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Natural Heritage site	Not considered possible <sup>6</sup>	6:1 Rehabilitation of a Natural Heritage site	R/C Not considered possible <sup>6</sup>	R/C Not considered possible <sup>6</sup>	Case-by-case
Category I Coastal Lagoon	Not considered possible <sup>6</sup>	6:1 Rehabilitation of a coastal lagoon	R/C not considered possible <sup>6</sup>	R/C not considered possible <sup>6</sup>	Case-by-case
Category I Bog	Not considered possible <sup>6</sup>	6:1 Rehabilitation of a bog	R/C Not considered possible <sup>6</sup>	R/C Not considered possible <sup>6</sup>	Case-by-case
Category I Estuarine	Case-by-case	6:1 Rehabilitation of an estuarine wetland	Case-by-case	Case-by-case	Case-by-case
NOTE: Preservation is discussed in the following section.					

Table 8-C 11 excerpted from: *Wetlands in Washington - Volume 2. Guidance for Protecting and Managing Wetlands* (Ecology Publication #05-06-008).

#### C Monitoring

For each mitigation action considered for approval by the Board and Oversight Committee, a monitoring plan will be written by the property manager and will outline the necessary elements to ensure that the required mitigation will be implemented and that the standards necessary to ensure that the intended mitigation will be achieved. The monitoring plan will include enough detail that the group identified as responsible for monitoring and reporting requirements will have the information needed to manage the site and submit timely reports as needed to assure that the mitigation has been achieved. Adequate funding to implement site specific project elements as well as both required monitoring and maintenance will be included in the cost analysis as decisions are made regarding selection of mitigation sites. Funding required to carry out implementation of restoration activities identified as mitigation elements under this Agreement as well as funding required for maintenance and required monitoring will be provided from the Fund and set aside in an escrow account or by other financial method to reserve funds for those specific purposes.

#### D. Additional Unanticipated Impacts

If the project results in unanticipated impacts to wetlands, riparian resources, or other sensitive aquatic resources, the Regulatory Agencies retain the right to analyze those impacts and seek additional mitigation from Northwest. In that event, with the Agreement of the parties, mitigation ratios will be calculated consistent with this Agreement and the Board will be responsible for ensuring that the required mitigation is implemented.

#### E. Biannual Report

The oversight committee will provide bi-annual reports summarizing the progress made towards meeting the mitigation obligations outlined in this Agreement. The report will include detailed accounting for funds dispersed from the Mitigation Account. There will also be a summary of parcels purchased or projects funded and types and areas of mitigation credited for each parcel or project. In addition, for each property purchased there will be profile information included that identifies the relative natural resource characteristics of the parcel, its location relative to other protected parcels and what mitigation credit was allowed, and evidence of the deed restriction used to ensure long-term protection.

### SECTION III

#### A Acquired Mitigation Properties - Status

All acquired mitigation properties shall be held in strict conservancy for the benefit of future generations. Restrictive covenants shall be recorded on each parcel in order to

ensure the conservancy status in perpetuity. The restrictive covenants shall be prepared by the administrator of the Fund for review and approval of the Board prior to recording

B     Maintenance of Properties

All acquired properties or funded projects shall have reserved unto them an appropriate amount of funds set out at time of purchase for ongoing maintenance and monitoring that will ensure that the mitigation intended under the provisions of this contract has been achieved.

C     Title of Properties

All acquired properties shall be held in fee simple, with the required conservation addendums or restrictive covenants, by a conservation group selected by consensus of the Board.

SECTION IV

- A.     Northwest Pipeline Corporation's Representations and Warranties. Northwest represents and warrants to the Tribe, Ecology, and Fish and Wildlife that it has full power and authority to execute, deliver, and carry out the terms and provisions of this Agreement and that each of the individuals signing on behalf of Northwest Pipeline Corporation has the authority to sign the Mitigation Agreement in the capacity executed herein and to bind Northwest Pipeline Corporation, on whose behalf he or she signs, to the terms and conditions of this Agreement
- B.     Nisqually Indian Tribe's Representations and Warranties. The Tribe represents and warrants to Northwest, Ecology, and Fish and Wildlife that the Tribe has full power and authority to execute, deliver, and carry out the terms and provisions of this Agreement, and that the individual signing on behalf of the Tribe has the authority to bind the Tribe to the terms and conditions of this Agreement.
- C.     Ecology and Fish and Wildlife Representations and Warranties. Ecology and Fish and Wildlife represent and warrant to the Tribe and Northwest that Ecology and Fish and Wildlife individually have full power and authority to execute, deliver, and carry out the terms and provisions of this Agreement, and that the individual signing on behalf of each Agency has the authority to bind their Agency to the terms and conditions of this Agreement.
- D.     Headings and Wordings. Paragraph headings in this Agreement are placed thereon for convenience only and do not necessarily reflect the full content of the respective paragraphs. All singular terms shall include the plural as a particular situation or context may require, and all words or pronouns of gender shall include the other genders as far as the particular situation or context may require.



E. Hold Harmless

Each party shall be responsible for the actions and inactions of itself and its own officers and agents acting within the scope of their authority. Moreover, each party to this Agreement holds the others harmless for the operation of the Fund in a manner, that despite the due diligence and best efforts of all parties, fails to fully expend the Fund on mitigation properties or projects in the Nisqually Basin. Northwest holds harmless the Tribe, Ecology, Fish and Wildlife, the Board and its administrators, for any inability to acquire sufficient mitigation projects or properties resulting in Northwest having to acquire other mitigation in order to fulfill the herein identified mitigation requirements of State or Federal permits

F. Dispute Resolution

1. Avoidance of Disputes. The Parties agree to work cooperatively, to consult informally, and to use best efforts to avoid disputes concerning the implementation of this Agreement
2. Notice of Dispute. If a dispute arises between the parties concerning the implementation of this Agreement, any party may initiate dispute resolution by giving written notice thereof to the other parties.
3. Informal Negotiations. Following receipt of a notice of dispute, the Parties shall attempt to resolve the dispute expeditiously and informally. If the dispute is resolved by informal negotiations, the Parties shall memorialize the resolution of the dispute by an exchange of letters.
4. Formal Negotiations – Preparation of Joint Statement of Position. If the Parties are unable to reach a resolution of a dispute through informal negotiations, after fourteen (14) calendar days following delivery of the notice of dispute described above in subparagraph two (2), any party may initiate formal negotiations by providing written notice to the other parties of the notifying party's intent to develop a Joint Statement of Position. The Joint Statement of Position shall consist of a concise written statement of the issues in dispute, including the relevant facts upon which the dispute is based and the data, analysis, or opinion supporting each position, and any supporting documentation on which each party relies. The Parties shall complete the Joint Statement of Position within fourteen calendar (14) days following receipt of the formal negotiations notice, or by such later date as the Parties shall agree. Upon completion of the Joint Statement of Position, the dispute shall be referred to authorized officials of each Party for resolution. Each Party shall advise the other parties in writing of the identity of the authorized official designated to participate in the dispute resolution process. The resolution agreed to by such authorized officials shall be binding upon the Parties. The Joint Statement of Position shall constitute the exclusive factual

record of the dispute in the event that the Parties are unable to resolve the dispute and any Party seeks judicial resolution.

G. Execution in Counterparts. This Agreement may be executed in counterparts, each of which shall constitute an original and all of which together shall be deemed a single document.

H. Amendments to this Agreement: Any amendment to this Agreement must be in writing and shall include the signature of all Parties to the Agreement signifying their concurrence in the Amendment.

**NISQUALLY INDIAN TRIBE**

\_\_\_\_\_  
By: Dorian Sanchez  
Its: Tribal Chairman

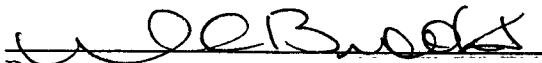
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**WASHINGTON DEPARTMENT OF ECOLOGY**

\_\_\_\_\_  
By: Richard K. Wallace  
Its: Regional Director, Southwest Regional Office

Date: \_\_\_\_\_

**WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE**

  
By: William C. Brooks  
Its: Contracts Officer

Date: **MAR 23 2006**

**NORTHWEST PIPELINE CORPORATION**

\_\_\_\_\_  
By: Dave Dean  
Its: Northwest Pipeline Corporation

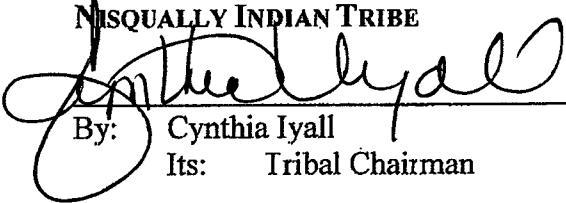
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Department of Ecology

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**NISQUALLY INDIAN TRIBE**

  
By: Cynthia Iyall  
Its: Tribal Chairman

Date: \_\_\_\_\_

**WASHINGTON DEPARTMENT OF ECOLOGY**

\_\_\_\_\_  
By: Richard K. Wallace  
Its: Regional Director, Southwest Regional Office

Date: \_\_\_\_\_

**WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE**

\_\_\_\_\_  
By: Greg Hueckel  
Its: Assistant Director, Habitat Program

Date: \_\_\_\_\_

**NORTHWEST PIPELINE CORPORATION**

\_\_\_\_\_  
By: Dave Dean  
Its: Northwest Pipeline Corporation

Date: \_\_\_\_\_ **CONTRACTS OFFICE**

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**NISQUALLY INDIAN TRIBE**

\_\_\_\_\_  
By: Dorian Sanchez  
Its: Tribal Chairman

Date: \_\_\_\_\_

**WASHINGTON DEPARTMENT OF ECOLOGY**

\_\_\_\_\_  
By: Richard K. Wallace  
Its: Regional Director, Southwest Regional Office

Date: 3/15/06

**WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE**

\_\_\_\_\_  
By: Greg Hueckel  
Its: Assistant Director, Habitat Program

Date: \_\_\_\_\_

**NORTHWEST PIPELINE CORPORATION**

\_\_\_\_\_  
By: Dave Dean  
Its: Northwest Pipeline Corporation

Date: \_\_\_\_\_

**CONTRACTS OFFICE**

SEP 21 2006

14 of 14

record of the dispute in the event that the Parties are unable to resolve the dispute and any Party seeks judicial resolution.

- G. Execution in Counterparts. This Agreement may be executed in counterparts, each of which shall constitute an original and all of which together shall be deemed a single document.
- H. Amendments to this Agreement: Any amendment to this Agreement must be in writing and shall include the signature of all Parties to the Agreement signifying their concurrence in the Amendment.

**NISQUALLY INDIAN TRIBE**

\_\_\_\_\_  
By: Dorian Sanchez  
Its: Tribal Chairman

Date: \_\_\_\_\_

**WASHINGTON DEPARTMENT OF ECOLOGY**

\_\_\_\_\_  
By: Richard K. Wallace  
Its: Regional Director, Southwest Regional Office

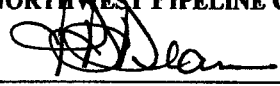
Date: \_\_\_\_\_

**WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE**

\_\_\_\_\_  
By: Greg Hueckel  
Its: Assistant Director, Habitat Program

Date: \_\_\_\_\_

**NORTHWEST PIPELINE CORPORATION**

  
\_\_\_\_\_  
By: Dave Dean  
Its: Northwest Pipeline Corporation

Date: 3/17/06

**CONTRACTS OFFICE**

SEP 21 2006

**Site Certification Agreement  
Between  
The State of Washington  
and  
The Washington Public Power Supply System**

**SATSOP POWER PLANT SITE**

- **WNP-3 and WNP-5**
- **Combustion Turbine and  
Associated Natural Gas Pipeline**

**Located in:  
Grays Harbor County, Washington  
Thurston County, Washington**

(Executed October 27, 1976; Amended March 18, 1982; Amended May 21, 1996)

**ENERGY FACILITY SITE EVALUATION COUNCIL**

**Olympia, Washington**

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Site Certification Agreement  
Between  
The State of Washington  
And  
The Washington Public Power Supply System  
for the  
Satsop Power Plant Site  
Grays Harbor County, Washington

This Site Certification Agreement is made and entered into pursuant to Chapter 80.50 of the Revised Code of Washington by and between the State of Washington (which is also referred to as the "State" in this document), acting by and through the Governor of the State of Washington, and the Washington Public Power Supply System (also referred to in this document as the "Supply System"), a municipal corporation and a joint operating agency of the State of Washington organized in January 1957 pursuant to Chapter 43.52 of the Revised Code of Washington.

Initial approval was provided by the Governor on August 25, 1976, and the Site Certification Agreement was entered into on October 27, 1976 for construction and operation of nuclear electric generating projects No. 3 and No. 5 (WNP-3 and WNP-5). On March 18, 1982, the Governor approved Amendment No. 1, which included changes to the terms for the operation of emergency diesel generators for Projects No. 3 and No. 5. On May 21, 1996, the Governor approved an Amended Site Certification Agreement incorporating Amendment No. 2,<sup>1</sup> which provides authorization and the terms and conditions for construction and operation of the Satsop Combustion Turbine Project. The Satsop Combustion Turbine Project consists of two combined cycle combustion turbine power plant units and an associated natural gas pipeline.

This Site Certification Agreement is administered on behalf of the State by the Energy Facility Site Evaluation Council (also referred to as "EFSEC" or the "Council" in this document).

The parties hereto now desire to set forth all terms, conditions, and covenants relating to such site certification in this Site Certification Agreement pursuant to the provisions of RCW 80.50.100 (4).

ARTICLE I. SITE CERTIFICATION

A. Site Description

1. The site on which Supply System's Projects are to be constructed and operated is located in Grays Harbor County, Washington, south of the Chehalis River, and is more particularly described in Attachment I, which is incorporated herein by reference.

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<sup>1</sup>This amended Site Certification Agreement may be referred to in this document simply as "Amendment No. 2".

2. The natural gas pipeline is to be located in Grays Harbor and Thurston counties, in the approximate location identified in the Application. The Supply System shall provide the Council with a legal description of the natural gas pipeline within 6 months after pipeline construction is completed

B. Site Certification

1. The State hereby authorizes the Supply System's nuclear electric generating projects known as WNP-3 and WNP-5 to be located, constructed and operated on the site described in Section I.A.1. hereof. WNP-3 and WNP-5 consist of two nuclear fueled steam electric generating units. Each of the units includes a pressurized water nuclear reactor with a maximum rated output of approximately 3800 megawatts thermal, a turbine generator, a natural draft evaporative cooling tower system, a reactor auxiliary building, certain associated transmission and service lines and other associated facilities required for the generation and transmission of electric power necessary for achieving a net electric generation capacity of approximately 1240 megawatts from each unit.
2. The Supply System hereby agrees to construct and operate WNP-3 and WNP-5 on the above described site subject to the terms and conditions of this Site Certification Agreement.
3. The State hereby authorizes the Supply System's combined cycle combustion turbine generating project, known as the Satsop Combustion Turbine Project, and as described below, to be located, constructed, and operated in the locations described in Section I.A.1 and I.A.2 hereof.
  - a. The Satsop Combustion Turbine Project consists of two natural gas fired combined cycle combustion turbine units and an associated natural gas pipeline.
  - b. The combustion turbine generator (CTG) for each unit is a Westinghouse 501 F model. Each combustion turbine unit will generate an average electrical output of 245 megawatts and shall have a heat recovery steam generator (HRSG) and a steam turbine generator (STG). Dry Low NOx Combustors in combination with Selective Catalytic Reduction (SCR) shall be used to minimize the formation of nitrogen oxides (NOx). An oxidation catalyst shall be used to control carbon monoxide (CO) and volatile organic compounds (VOC) emissions. Cooling will be provided by a cooling tower consisting of four cells.
  - c. Natural gas shall be used as the primary fuel. Natural gas will be supplied through a 48 mile pipeline, approximately 16 - 20 inches in diameter, connecting to the Northwest Pipeline Corporation's mainline near Vail, Washington. Low sulfur No. 2 fuel oil will be used as backup fuel. Use of fuel oil is limited to 360 hours of operation per unit per year.

- d. The electrical output of each unit of the Satsop Combustion Turbine Project will be delivered through the Bonneville Power Administration's high-voltage system to the existing Bonneville Power Administration Satsop substation.
- 4. Construction of either or both units of the Satsop Combustion Turbine Project may begin within ten (10) years from the date of signing the Second Amended Site Certification Agreement authorizing the construction and operation of the Combustion Turbine Project. Construction of each unit may begin separately or simultaneously within that 10 year period. Construction is deemed to begin upon the start of construction of a unit's major components (i.e., the combustion turbine or the natural gas pipeline), excluding site preparation, upon a schedule and with the intention of completing construction within eighteen months after commencement. If construction of either unit's major components has not commenced within ten (10) years of the signing of Amendment No. 2, rights under Amendment No. 2 to construct and operate the combustion turbine unit that has not commenced construction shall cease.
- 5. Six months before beginning construction, the Supply System (a) during the first five years after execution of this Site Certification Agreement shall identify to the Council any substantial relevant change or certify the lack of substantial change in relevant environmental conditions, regulatory environment, or economically available technology, and (b) during the second five years shall certify that the representations of the application, environmental conditions, pertinent technology, and regulatory conditions remain current, or identify any changes and propose appropriate resulting changes in the Site Certification Agreement to deal with changes. Construction may begin only upon prior Council authorization, upon the Council's finding that no changes to the Site Certification Agreement are necessary or appropriate, or upon the effect of any necessary or appropriate changes.
- 6. Not less than six months prior to beginning construction of each generating unit of the combustion turbine project, the Supply System must provide EFSEC with evidence that the Supply System has satisfied its obligations under this Site Certification Agreement as follows:
  - a. That it has entered into one or more power purchase agreements that provide in the aggregate for the purchase and sale of at least 60% of the design capacity of the unit or units being constructed.
  - b. That any such power purchase agreement shall have a term of at least 5 years.
  - c. That with respect to any purchaser entering into a power purchase agreement for more than 40% of the capacity of the generating unit, the Supply System must ensure that the following conditions are met:
    - i. If the purchaser has developed an integrated resource plan as defined in 16 U.S.C. § 2621(d)(7) & 2602(19), then the combustion turbine project must be of the type included in the purchaser's preferred resource acquisition strategy.

- ii. If the purchaser has not formally adopted an integrated resource plan, then either (a) the purchaser must have reviewed commercially available supply and demand side resources, (b) the purchaser must be located in the service territory of a utility that has an integrated resource plan meeting the criteria set forth in section I.B.6.c.i. above, or (c) the combustion turbine project must be consistent with the priorities and principles expressed in the Northwest Conservation and Electric Power Plan promulgated by the Northwest Power Planning Council.

## ARTICLE II. GENERAL CONDITIONS

### A. Legal Relationship

1. This Site Certification Agreement is made in lieu of any permit, certificate or similar document required by any department, agency, division, bureau, commission, board, or political subdivision of this state.
2. The Supply System agrees to enter into a lease with the State Department of Natural Resources for use of certain public state land needed for the nuclear projects.
3. Liquid discharges from the Satsop site to navigable waters shall be made in accordance with the National Pollution Discharge Elimination System (NPDES) permit issued by the Council (Attachment III).
4. Discharges from the Satsop site into the atmosphere of gases or substances shall be made in accordance with the Prevention of Significant Deterioration (PSD) permit issued by the Council (Attachment VIII)
5. This Site Certification Agreement shall bind the Supply System and the State and its departments, agencies, divisions, bureaus, commissions, boards, and political subdivisions subject to all the terms and conditions set forth herein.
6. This Site Certification Agreement is subject to federal law and regulations applicable to the project and to the terms and conditions of any permits and licenses which may be issued to Supply System by appropriate federal agencies.
7. This Site Certification Agreement constitutes the whole and complete agreement between the parties and supersedes any other negotiations, representations or agreements, either written or oral, and not set forth herein, *Provided*, that any representations and/or commitments made of or on behalf of the Supply System in the application and on the record during the adjudicative proceeding, are incorporated herein by this reference and made a part hereof as though set forth herein.
8. The Supply System agrees to submit any requests for waivers from the requirements found at Section 480-93-020 and -030, Washington Administrative Code, for the natural gas pipeline to the Council. The Council will act upon any such request after

considering any relevant information or recommendation presented by the Supply System, by the WUTC or its authorized Staff, and by any other interested person or persons.

9. The Supply System shall assure that measures are taken during construction and operations at the Satsop site and pipeline route that will protect public health and safety from flood hazards. Such measures include minimizing impacts at river and stream crossings and other areas within the 100-year floodplain and floodway, as identified by Federal Emergency Management Agency maps, to provide for adequate conveyance of flood waters, including the assurance of no significant rise in base flood elevations.

B. Enforcement

1. This Site Certification Agreement may be enforced by resort to all remedies available at law or in equity.
2. This Site Certification Agreement may be revoked, suspended, or modified by the State for failure by Supply System to comply with any of the terms and conditions herein, or for violations of Chapter 80.50 RCW, regulations issued thereunder, and any other applicable state or federal laws or regulations, or for violation of any order of the Council, pursuant to the provisions of Chapters 80.50 and 34.05 RCW and Title 463 WAC.
3. When any action of the Council is required by or authorized in this Site Certification Agreement, the Council may, but shall not be required to, conduct a hearing pursuant to Chapter 34.04 RCW. If the Council withholds or refuses approval of a required or requested action and the Council grants a hearing, it shall be conducted pursuant to Chapter 34.04 RCW.

C. Notices and Filings

Filing of any document or notice required by this Site Certification Agreement with the Council shall be deemed to have been duly made when delivered to the Council's offices in Olympia, Washington. Notice to be served upon the Supply System shall be deemed to have been duly made when deposited in first class mail, postage prepaid, addressed to the office of the Chief Executive Officer of the Supply System.

D. Right of Inspection

The Supply System agrees to provide access to the project site and all constituent or associated facilities authorized by or contemplated in this Site Certification Agreement, subject to applicable health and safety regulations, and to all records regarding the construction and operation of facilities authorized or contemplated in this Site Certification Agreement, to designated representatives of the Council in the performance of their official duties.

E. Site Certification Agreement Compliance Monitoring and Costs

The Supply System shall pay to the Council such reasonable costs as are actually and necessarily incurred for monitoring and compliance activities during the construction and operation of projects as authorized in this Site Certification Agreement and as required in Chapter 80.50 RCW. EFSEC shall prescribe the amount and manner of such payment subject to applicable rules and procedures.

F. EFSEC Liaison

The Supply System shall designate a person to act as a liaison between the Council and the Supply System for matters relating to the Satsop site.

G. Site Restoration

The Supply System is responsible for site restoration pursuant to Council rules. At least six months prior to beginning construction, the Supply System shall present to the Council its initial site restoration plan. Construction may not begin until the Council has approved a plan adequately providing for site restoration and for the funding of site restoration in the event of the Satsop Combustion Turbine Project being terminated before it has completed its planned useful operating life. A detailed Satsop Combustion Turbine Project site restoration plan shall be submitted to the consistent with Council rules.

H. Modification of Site Certification Agreement

1. This Site Certification Agreement may be amended pursuant to Council rules and procedures then in effect, and in like manner as the development of the original Site Certification Agreement, including, but not limited to, obtaining approval of the Governor. Any such amendments to this Site Certification Agreement shall be made in writing.
2. Any change of the terms or conditions of a PSD or an NPDES Permit or any modification of this Site Certification Agreement required by federal law or regulations shall be governed by applicable law and regulation and shall not require modification of this Site Certification Agreement in the manner prescribed in H.1 above. Any change in the terms or conditions of Attachment I - Site Legal Description; Attachment II - Excavation and Erosion Control Measures; Attachment IV - Environmental Monitoring Program for the Nuclear Projects; Attachment V - Water Withdrawal Authorization; Attachment VI - Contract for Water Supply (with City of Aberdeen); and Attachment VII - Mitigation Measures and Project Conditions; shall not require modification of this Site Certification Agreement in the manner prescribed in H.1 above, unless otherwise required by Council rules or regulations.
3. In circumstances where a significant degree of adverse impact on the environment exists or is imminent, the Council may impose specific conditions or requirements upon the Supply System in addition to the terms and conditions of the Site Certification Agreement as a consequence of those circumstances. Such additional conditions or requirements shall be effective only while needed to protect the public

health, safety or welfare from the adverse circumstances, for not more than 90 days, and may be extended for additional 90 day periods if deemed necessary by the Council.

### ARTICLE III. PROJECT CONSTRUCTION

#### A. Construction Commencement and Reporting

1. Preconstruction requirements. At least six months prior to beginning construction, the Supply System shall provide to the Council the following documents for the Council's review and approval, and it shall not begin construction until it receives approval to do so:
  - a. Pipeline design and location plans, drawings, and other appropriate materials..
  - b. Reports as to validity of environmental, regulatory, and technological requirements of the Site Certification Agreement.
  - c. Initial site restoration plan, as provided in II. G., above
  - d. The Supply System shall submit other documents at the appropriate times as required under the terms of this Site Certification Agreement (See, e.g., section A.3.a., below.)
2. Construction Schedule
  - a. Thirty days prior to beginning construction, the Supply System shall submit an overall construction schedule. The Supply System shall submit a quarterly Construction Progress Report to the Council, within 30 days after the end of the quarter, during the construction period.
  - b. The Supply System agrees to (i) notify the Council immediately in the event of any significant change in the construction schedules on file with the Council, and (ii) serve copies on the Council of all "Notices to Proceed" which are issued to contractors with respect to contracts requiring work in the Chehalis River.
3. Plans and specifications
  - a. The Supply System shall submit to EFSEC or its designated representative for approval, at the appropriate time, those design documents that demonstrate compliance with the conditions of this Site Certification Agreement. The design documents shall include, but are not limited to, conceptual design studies, flow diagrams, system descriptions, detailed design drawings and specifications as appropriate, and vendor guarantees for equipment and processes.

- b. The Supply System shall design the proposed facility to comply with requirements for construction in Seismic Zone 3.
- c. Project buildings and structures shall comply with requirements of the Grays Harbor county construction codes and with Section 301(a) of the Uniform Building Code (UBC). Buildings and structures are defined in Sections 403 and 420 of the UBC. Work exempt from compliance is defined in UBC Section 301(b) or by approval of the Council.

B. Access Roads and Railroads

All permanent primary roads, temporary roads, and railroads constructed by Supply System or its contractors for servicing the Projects' facilities shall be in accordance with appropriate standards set forth by state law or regulation. The Supply System agrees to make available to the Council design and construction plans upon its request.

C. Aesthetics and Landscaping

1. The Supply System agrees to construct the Project in a manner which is aesthetically compatible with the adjacent area.
2. The Supply System agrees to landscape Project lands within the fenced perimeter in a manner which is compatible with the surroundings, using indigenous plants and vegetation where possible.
3. In the event of damage to or removal of vegetation resulting from construction by the Supply System, the Supply System agrees to return the area affected to original topsoil condition and to restore indigenous plant species.
4. Two screening berms will be built between the Satsop Combustion Turbine Project and Keys Road. The berms will be vegetated with indigenous plant species in a random arrangement to simulate native patterns.

D. Surface Run-off and Erosion Control

1. During construction, the Supply System agrees to require its contractors to employ all means necessary to meet standards set forth in this Site Certification Agreement and to use any other reasonable means in order to avoid soil erosion. The Supply System agrees to set forth such conditions as are necessary for compliance thereto in its bidding documents, plans, and contracts, which will be developed in consultation with the Council.
2. The Supply System agrees to comply with provisions relating to excavation and erosion control described in Attachment II, attached hereto and incorporated herein by reference, and will require all contractors to comply therewith.
3. Sedimentation, erosion control, dust control, and related construction plans pertaining to work on the site, permanent and/or temporary roads and the natural gas pipeline



must conform to requirements set forth in Attachment II or alternative plans submitted by Supply System to and accepted by the Council.

4. The Supply System agrees to make available all sedimentation and erosion control system plans to the Council for its approval upon request.
5. In the event of unforeseen surface water runoff during construction, The Supply System agrees to comply with all pertinent industry standards for control of such runoff during construction. The Supply System further agrees to take such actions as are deemed necessary and reasonable by the Council to control said runoff. The Supply System agrees to promptly notify the Council of the occurrence or likely occurrence of any surface water runoff problem.
6. The Supply System shall take such steps as are necessary to assure that all construction activity will not result in a violation of applicable turbidity criteria in the State of Washington Water Quality Standards. The Council may, in its discretion, grant a temporary waiver of such standards upon request by Supply System.

E. Transmission Lines

1. Associated transmission lines for the nuclear projects will connect the projects to the Northwest Power grid at the Bonneville Power Administration Satsop Substation.
2. Associated transmission lines for the Satsop Combustion Turbine Project will connect the project to the Northwest Power grid at the Bonneville Power Administration Satsop Substation. The transmission lines will be placed in the existing Bonneville Power Administration rights of way. Towers will be placed to avoid unstable areas along Fuller Creek.
3. All associated electrical transmission and service lines shall comply in design and construction with all applicable state, federal, and industry standards, including any applicable standards specified in earlier versions of this Site Certification Agreement to the extent that they have not been superseded. In the event of inconsistency among applicable standards, the most stringent standard shall apply.

F. Water Intake Systems

1. The Supply System shall be permitted to construct and maintain an intake system to withdraw water utilizing wells, which system shall conform with standards and conditions provided in this Site Certification Agreement for construction and operation of the projects.
2. The Supply System agrees to consult with the Council or with its designated representatives in development of plans, bid documents, and contracts for construction of the water intake system, all of which The Supply System agrees to make available to the Council upon its request.
3. The Supply System further agrees to submit in a timely manner specific location plans, drawings and construction contracts for installation of the intake system to the

Council for its review and comment. If the Council has objections to any of the particulars of the materials submitted, it shall forthwith advise the Supply System of same and the reasons therefor. The Supply System agrees to take such corrective action as may be necessary to satisfy the objections before commencing any site preparation or construction of the intake system.

4. The Supply System agrees to install the permanent power supply to the water intake facilities by means of an underground circuit.
5. The Supply System agrees to construct a water intake system in accordance with the following terms and conditions:
  - a. No cross connection shall be permitted that allows contamination of the potable/construction water supply system from the plant makeup water system.
  - b. Any material placed by the Supply System upon the river bank for bank protection shall be clean and of sufficient size to prevent it from being washed away. Bank protection activities shall be coordinated with the Council or its designated representatives.
  - c. Construction activity in the Chehalis River main stem or tributary stream channels or on stream banks must be confined to the period July 1 to September 30 unless otherwise specifically approved by the Council.
  - d. The Supply System agrees that plans and bid documents for construction of the intake system must comply with all state, federal and local flood zone requirements.
6. The Supply System is authorized to withdraw up to 300 gallons per minute from ground water in an area near the confluence of the Chehalis and Satsop rivers, as more particularly described in Attachment V, attached hereto and incorporated herein by reference.
7. The Supply System shall install and maintain a Council approved measuring device in accordance with RCW 90.03.360 and WAC 508-64-020 through 040.
8. The Supply System agrees to ensure that the contract between the Supply System and the City of Aberdeen that supplies 62 cfs to the Wynoochee River shall remain in force until the entire 70.5 cfs not being used for the Satsop Combustion Turbine Project is relinquished by the Supply System. That Contract is provided as Attachment VI.
9. Six months after execution of this Site Certification Agreement, the Supply System shall install a suitable river flow monitoring gauge at the location of Control Station No. 12.0350.02 (Chehalis River below the confluence with the Satsop River). The type, location and installation of the gauge shall be approved by the Council in consultation with the Department of Ecology.

G. Discharge System

1. The Supply System shall be permitted to construct, maintain, and operate a discharge system on the shoreline and in the bed of the Chehalis River, within the site, for operation of the projects. Such discharge system shall be subject to the terms and conditions of this Site Certification Agreement and the NPDES Permit issued by the Council and attached hereto as Attachment III and incorporated herein by this reference.
2. Supply System agrees to consult with the Council or its designated representatives in the development of plans, bid documents, and contracts for construction of the discharge system.
3. Supply System further agrees to also submit in a timely manner specific location and design plans, drawings, bid documents, and construction contracts for installation of the discharge system to the Council for its review and comment. If the Council has objections to any of the particulars of the materials submitted, it shall forthwith advise the Supply System of same and the reasons therefor. The Supply System agrees to take such corrective action as may be necessary to satisfy the objections before commencing any site preparation or construction of the discharge system.
4. Construction or maintenance activities in the Chehalis River main stem, tributary stream channels, or any active stream channel shall be confined to the period of July 1 to September 30, unless otherwise specifically authorized by the Council.
5. The Supply System agrees to maintain in good working order, and properly operate the cooling tower and all other waste recovery and pollution abatement facilities under its control.
6. The Supply System agrees to dispose of sanitary wastes in accordance with the terms of the NPDES Permit attached hereto as Attachment III and Council Resolution No. 242, Amendment No. 2, dated June 13, 1994.
7. The discharge pipe used to discharge effluent from plant operations shall be buried at a sufficient depth to insure its integrity and shall be covered with a layer of natural materials level with the bed of the river. Excavated material shall not be placed, held or stockpiled in the river while being retained for later placement over the pipe. Any concrete used for constructing the outlet structure shall be isolated from the river waters during any placing and curing.

H. Barge Slip

1. The Supply System may construct and maintain a barge slip for construction or site restoration of the nuclear projects, subject to conditions stated in this Site Certification Agreement and other attachments hereto.
2. The Supply System agrees to consult with the Council or its designated representatives in the development of plans, bid documents, and contracts for construction and maintenance of the barge slip.

3. The Supply System further agrees to submit in a timely manner specific location and design plans, drawings, bid documents, and construction contracts for installation of the barge slip to the Council for its review and comment. If the Council has objections to any of the particulars of the materials submitted, it shall forthwith advise Supply System of same and the reasons therefor. The Supply System agrees to take such corrective action as may be necessary to satisfy the objections before commencing any site preparation or construction of the barge slip.
4. Construction or maintenance activities associated with the barge slip in the Chehalis River main stem or tributary stream beds or stream banks must be confined to the period July 1 to September 30 unless otherwise specifically authorized by the Council.
5. The Supply System agrees to demonstrate to the Council that its construction and maintenance of the barge slip will comply with the turbidity criteria set out in State Water Quality Standards except when, on request, the Council has granted a temporary waiver of such criteria.
6. During construction or maintenance of any such barge slip, the Supply System agrees to: (a) establish and maintain grading and sloping on the bed and bank of the Chehalis River and tributary creek area so as not to create fish traps; (b) construct or maintain the barge slip in the dry during the period of low river flow; (c) submit plans to the Council if requested, concerning all proposed procedures for underwater excavation attendant to the construction or maintenance of such facilities; and (d) do no dredging in the Chehalis River or its tributaries except for the entrance to the barge slip.
7. After the barge facilities have served their intended purpose, the Supply System agrees to restore the barge area to water oriented-uses. The Supply System agrees to consult with the Council regarding such restoration.
8. The Supply System shall arrange for the arrival and departure of equipment barges to coincide with times during which the net instantaneous downstream flow of the river is sufficient to provide river passage and navigational control of barges and prime movers.

I. Construction Clean-Up

The Supply System agrees upon completion of construction to dispose of all temporary structures not required for future use. It also agrees to dispose of used timber, brush, refuse or flammable material resulting from the clearing of lands or from the construction of the projects in a manner approved by the Council.

J. As-Built Drawings

The Supply System agrees to allow access to the Council or its designated representatives, on request, to complete sets of as-built drawings for the following listed project components and for other components as the Council may require in the future:

1. Water intake systems;
2. Water discharge system;
3. Sedimentation and erosion control systems;
4. Sanitary waste disposal systems;
5. Cooling towers and condenser coolant loop;
6. All associated electrical transmission and service lines and substations;
7. Barge off-loading facility;
8. Access and temporary construction roads;
9. River gauge station; and
10. Natural gas pipeline.

K. Archaeological Site Protection

1. The Supply System agrees to coordinate with the Council and local Tribes to develop an acceptable construction monitoring plan and will implement the plan during construction of the projects, including the natural gas pipeline associated with the Satsop Combustion Turbine Project.
2. The Supply System agrees to halt relevant construction activity immediately and report to the Council all archaeological or historical findings made during the course of excavation and construction of any project authorized herein, including associated natural gas pipeline and electrical transmission lines.
3. The Supply System agrees to consult with the Council to arrange for preservation of artifacts and for interpretation of any archaeological or historical site discovered in the course of any construction.

L. Natural Gas Pipeline

1. The Supply System shall be permitted to construct and operate a natural gas pipeline associated with the Satsop Combustion Turbine Project. The Supply System agrees to design, construct, and operate the natural gas pipeline in accordance with pertinent state and federal regulations, including the requirements of Washington Utilities and Transportation regulations found at Chapter 480-93, Washington Administrative Code, and with the conditions and requirements stated in this Site Certification Agreement.
2. The Supply System agrees to consult with the Council or with its designated representatives in development of plans, bid documents, and contracts for construction of the natural gas pipeline, all of which Supply System agrees to make available to the Council upon request.
3. The Supply System further agrees to submit in a timely manner, no later than six months prior to the anticipated beginning of construction, specific location plans, drawings and construction contracts for installation of the natural gas pipeline to the Council and its designated representatives for review and approval. If the Council has objections or concerns regarding any of the particulars of the materials submitted, it shall forthwith advise the Supply System of those objections, etc., and the reasons therefor. The Supply System agrees to take such corrective action as may be

necessary to satisfy the objections before commencing any site preparation or construction of the natural gas pipeline. The Supply System will submit a pipeline safety plan for Council review and approval no less than three months before beginning pipeline operation.

4. Construction related activity within an active stream or river channel and/or within 50 feet of stream or river banks shall be limited to the period of July 1 to September 30, unless otherwise specifically authorized by the Council.
5. The Supply System agrees to comply with the mitigation measures identified in Attachment VII.
6. The Supply System shall apply the priority of mitigation principles (avoid, minimize, restore, and replace in that priority order) in its decisions and actions in planning, constructing, operating, and maintaining the natural gas pipeline.
7. The Supply System shall submit to the Council for its review and approval, no later than six months prior to beginning of combustion turbine operations, a five year monitoring plan to assess mitigation success. The success of wetland and riparian revegetation shall be monitored annually, with annual written reports to the Council and its designated representatives, until the Council terminates the requirement.

M. Construction Phase Spill Prevention

The Supply System shall submit for Council review and approval a spill prevention and countermeasure program that complies with the provisions of Condition S.4 of the Satsop Combustion Turbine Project's NPDES permit three months prior to beginning construction of the project. This program shall address oil/chemical storage, containment, site security and personnel training. The program shall also address measures that will be taken to control and contain discharge, cleanup actions, notification of appropriate agencies and a list of available cleanup materials.

N. Septic System for the Satsop Combustion Turbine Project

1. The Supply System shall be permitted to construct, maintain, and operate a septic system for the Satsop Combustion Turbine Project.
2. A preliminary report on the septic system design for the Satsop Combustion Turbine Project shall be prepared and submitted to the Council for its review and comment. The report shall include: site conditions, schedule of development, water balance analysis, and overall effects of the proposed system on the surrounding area.

O. Coastal Zone Management

The Supply System shall ensure consistency with the requirements of the Coastal Zone Management Program, the Shoreline master programs of Thurston and Grays Harbor counties, the Federal Water Pollution Control Act, and the State Water Pollution Control Act.

P. Noise

1. No construction activities are permitted on Sundays, legal holidays, or between 10:00 p.m. and 6:00 a.m. within 1000 feet of an occupied residential dwelling.
2. All construction equipment shall have noise control devices no less effective than those provided originally by the equipment's manufacturer.
3. Pile driving or blasting operations shall not be permitted within 3,000 feet of an occupied residential dwelling on Sundays or legal holidays or between 8:00 p.m. and 8:00 a.m. on other days.

ARTICLE IV. OPERATION OF THE PROJECT

A. Water Withdrawal

1. The Supply System is hereby authorized to withdraw water for operation of the Satsop Site as follows:
  - a. The Supply System will limit its withdrawal of water from the Chehalis River through the Ranney wells to 80 cubic feet per second, apportioned as follows:
    - i. The two combustion turbine units are limited to a total of 9.5 cubic feet per second, of which 8.6 cubic feet per second will be for power production, including quench water to meet the temperature limits of the NPDES permit, with the remaining 0.9 cubic feet per second for quench water to cool the Satsop Combustion Turbine Project discharge below the temperature set in the NPDES Permit. Withdrawal is, subject to the terms as more particularly described in Attachment V, attached hereto and incorporated by reference.
    - ii. WNP-3 is limited to a total of 40 cubic feet per second.
    - iii. WNP-5 is limited to a total of 30.5 cubic feet per second.
  - b. The Supply System is authorized to withdraw up to 300 gallons per minute from ground water in an area near the confluence of the Chehalis and Satsop rivers from a well known as the raw water well. Withdrawal of water from this well for any uses other than domestic supply and fire suppression will be

limited to 300 gallons per minute and will be limited by restrictions set forth in Attachment V on withdrawals during periods of low flows.

2. Authorization to withdraw water from the Ranney wells for operation of WNP-3 for power production shall be suspended when the net instantaneous downstream flow falls below the rate of 550 cubic feet per second, exclusive of any tidal influence, immediately downstream of the point of diversion. However, the Supply System may continue to withdraw minimum flows to maintain a "hot standby" condition, not to exceed 2 cubic feet per second.
3. Should the withdrawal for operation of the projects impair existing water rights, the Supply System agrees to compensate the holder of such rights for such impairment caused by the withdrawal, and to take necessary measures to prevent recurrence of such impairment.
4. Withdraw water from the Ranney wells for operation of the Satsop Combustion Turbine Project shall be decreased (or stopped) as necessary to assure that the project does not affect the minimum base flows immediately downstream of the point of diversion. The required minimum base flows are established in Chapter 173-522-020, Washington Administrative Code, and set forth in Attachment V. All withdrawals are subject to the withdrawal restrictions set forth in Attachment V, and the additional 0.9 cubic feet per second of quench water withdrawal is also limited to periods in which an additional withdrawal will actually reduce the temperature of the discharge. This authorization is also subject to the provisions of Chapter 173-522 and Chapter 173-500, Washington Administrative Code.
5. The Supply System agrees that if its future development on the site, unrelated to any Project authorized in this Site Certification Agreement, requires a water appropriation, the Supply System will apply for such appropriation to the Council or Department of Ecology, whichever has jurisdiction over the project. The priority date will be assigned at the time of application under applicable laws and regulations.
6. The Supply System shall use existing pumps, install new pumps or modify the existing pumps in the Ranney wells to limit withdrawals to that total amount authorized by the Council and/or Washington Department of Ecology.
7. The Supply System agrees to relinquish voluntarily 30.5 cubic feet per second of the existing 80 cubic feet per second authorization at the Satsop site at the completion of decommissioning and restoration of WNP-5 or five years from the date of Amendment No. 2, whichever occurs first, *Provided*, that the Supply System shall reserve the right to withdraw sufficient water to accomplish site restoration, to be relinquished at the completion of site restoration.



8. If the Supply System does not go forward with the WNP-3 project, the Supply System agrees to relinquish voluntarily 40 cubic feet per second of the existing 80 cubic feet per second authorization at the Satsop site at the completion of the decommissioning and restoration of WNP-3 or five years from the date of Amendment No. 2, whichever comes first, *Provided*, that the Supply System shall reserve the right to withdraw sufficient water to accomplish site restoration, to be relinquished at the completion of site restoration. If the Supply System decides to go forward with the WNP-3 project within five years from the date of Amendment II, the priority date remains December 17, 1973, and Supply System may use the existing pumps for water withdrawal.
9. The Supply System may use the existing and/or modified equalization pond to store water in order to provide the necessary water for the Satsop Combustion Turbine Project during the low flow periods set forth in Attachment V.

B. Water Discharge

1. No liquid radioactive waste shall be discharged into the Chehalis River, its tributaries or other state waters during normal plant operations.
2. All discharges by the Supply System to state waters shall be in accordance with Chapter 90.48 RCW and the terms and conditions of this Site Certification Agreement; and with the terms and conditions of the NPDES Permit as issued by the Council and attached hereto as Attachment III and as may be later amended by the Council.

C. Discharge Into Air

1. The Supply System agrees to construct and operate the nuclear projects in such a manner as to not discharge nor cause to be discharged into the ambient air materials resulting from the operation of auxiliary boilers which measured at the point of discharge, will directly result in:
  - a. Nitrous oxides, measured as nitrogen dioxide in excess of 0.3 lbs/10<sup>6</sup> BTU:
  - b. Sulfur dioxide in excess of 0.8 lbs/10<sup>6</sup> BTU:
  - c. Ash in excess of 0.2 lbs/10<sup>6</sup> BTU.
2. For the nuclear projects, low sulfur oil, not exceeding 0.5 percent sulfur, will be used for diesel fuel at all times.
3. The Supply System agrees to incorporate all known, available, and reasonable technology in the design of the nuclear project's cooling towers and to operate the towers so as to minimize fogging and icing effects on the surrounding areas and highways.
4. Levels of radioactive discharges to the atmosphere shall be as low as practicable and shall not exceed applicable federal standards.

5. The Supply System shall operate the Satsop Combustion Turbine Project so that all discharges to the atmosphere shall comply with the Approval of Notice of Construction and Prevention of Significant Deterioration Application as set forth in Attachment VIII, attached hereto and incorporated by reference.
6. The Supply System shall properly operate and maintain in good working order all air pollution control equipment and monitoring equipment required in Attachment VIII.
7. If construction of at least one unit of the Satsop Combustion Turbine Project is not begun within eighteen (18) months after receipt of final approval, or if construction or operation of both units of the Satsop Combustion Turbine Project is discontinued for a period of eighteen (18) months, the Prevention of Significant Deterioration shall be void.
8. The Supply System shall report immediately to the Council whenever the air monitoring programs disclose the existence of emergency conditions or conditions that might lead to a violation of the air emission permit as provided in Attachment VIII.

D. Vegetation, Fish, and Animal Life

1. The Supply System agrees to comply with the Satsop Power Plant Site Wildlife Mitigation Plan, Revision 1; the Agreement on Management for Wildlife Mitigation, dated September 29, 1994, between the Supply System and the Washington Department of Fish and Wildlife; the Satsop Power Plant Habitat Evaluation Procedure Impact Assessment, dated June 28, 1994; and the Satsop Power Plant, Wildlife Mitigation Plan, Standard Operating Procedures as approved by the Council in Resolution No. 275.
2. The Supply System shall provide such additional measures for protection of wildlife, fish, and other aquatic life and the ecology of area deemed necessary by the Council to minimize adverse impact from construction or operation of the projects.
3. The Supply System shall comply with mitigation measures relating to vegetation, fish and animal life as provided in Attachment VII - Mitigation Measures and Project Conditions, attached hereto and incorporated by reference.
4. The Supply System agrees to the following pipeline right-of-way practices:
  - a. Herbicides and pesticides will not be used within 100 feet of a water body.
  - b. Vegetation maintenance practices over the full width of the permanent right-of-way in wetlands and riparian areas are prohibited. However, to facilitate periodic pipeline surveys, a corridor centered on the pipeline up to ten feet wide may be maintained in a herbaceous state. In addition, trees that are located within fifteen feet of the pipeline and are greater than fifteen feet in height may be selectively cut and removed from the right of way.

E. Lighting

In specific locations where glare or light spillover would impact Keys Road or be obtrusive to nearby residences, lighting angles will be adjusted to minimize glare impacts, or supplemental light shields/vegetation will be used for extra screening.

F. Noise

1. The combustion turbines and other major sources of sound shall be enclosed within structures in which acoustical damping has been installed.
2. Acoustically absorptive silencers shall be installed on the combustion turbine air intake system, enclosure ventilating systems, and emergency relief valves.
3. Separate acoustical enclosures shall be installed for major noise sources including each combustion turbine and generator.
4. Acoustically absorptive insulation shall be installed in duct walls of the combustion turbine air intake and exhaust systems.

ARTICLE V. PUBLIC AND ENVIRONMENTAL PROTECTION

A. Emergency Plans

1. The Supply System will develop an Emergency Plan for nuclear project operation in accordance with 10 CFR 50.34a and 10 CFR 50 Appendix E. In preparing that plan Supply System agrees to:
  - a. Coordinate such plan with local, state and federal agencies directly involved in implementing such a plan.
  - b. Include detailed provisions in the Emergency Plan for public health and safety, emergency medical treatment, special emergency training programs and prevention of property damage.
  - c. Comply with relevant provisions of the Washington State Military Department, Fixed Nuclear Facility Emergency Response Plan or successor document.
  - d. Periodically provide the Council with updated lists of emergency personnel, communication channels and procedures.
2. The Supply System shall develop for review and approval by the Council an Emergency Response Plan which will proscribe the methods, means, and resources available for emergencies due to fire or explosions in association with the Satsop Combustion Turbine Project and associated pipeline no later than three months prior to operation of the combustion turbines and natural gas pipeline.

B. Security Plan

The Supply System will submit a comprehensive physical Security Plan for the protection of the site and project facilities.

C. Monitoring Program for the Nuclear Projects

1. The Supply System agrees to initiate and maintain Environmental Monitoring Programs as described in Attachment IV, attached hereto and incorporated herein by this reference. The programs shall be developed and implemented in close consultation with the Council and shall be subject to Council approval. Reasonable modifications may be made with approval of the Council, when these are necessary to achieve the purpose of the program. Aquatic, terrestrial ecology and water quality surveillance shall begin prior to land clearing or other site alteration. Other programs shall begin in accordance with schedules contained in Attachment IV referred to above.
2. The Radiological Monitoring Program shall be in accordance with NRC requirements and shall be initiated two years prior to fuel loading to provide for measurement of radioactive releases from the facility and a reliable assessment and record of their distribution and retention in the environment within an area to be described by the Council and approved by federal regulatory agencies.
3. The Supply System may engage a qualified consultant to carry out all or any portion of the environmental monitoring studies required to effect the Monitoring Program set forth in Attachment IV hereof. The Supply System agrees to submit the required qualifications for the consultant, and bid documents, to the Council for approval prior to solicitation of proposals from any such consultant. The Supply System agrees to require the consultant to comply with all applicable conditions of this Site Certification Agreement and a valid NPDES Permit issued by the Council.
4. The Supply System agrees to submit to the Council, on request, any information or data recorded by Supply System's Monitoring Program, and, on a regular basis, copies of reports from the monitoring programs. Where additional reports or notifications are required to be filed by the Nuclear Regulatory Commission's construction permit, operating license or other regulations, copies of such reports or notifications shall be submitted to the Council, at the same time they are submitted to the Nuclear Regulatory Commission.
5. In carrying out monitoring programs, the Supply System shall establish to the Council's satisfaction and approval sampling locations, on and off the site, sufficient to provide a representative sampling of environmental effects in the surrounding area.
6. At the time of start-up of the first nuclear generating unit, the Supply System shall make a report of pre-operational monitoring data and shall establish baseline reference values for all parameters in such report. The report shall be submitted to the Council within ninety (90) days after start-up of the first unit. Annual reports on a calendar year basis shall be submitted thereafter by March 31 of each year summarizing

operational data, anomalies therein and comparisons made with previously established baseline data, except that emergency conditions or situations including emergency plant shut down shall be reported to the Council.

7. The Supply System agrees to report immediately to the Council whenever the monitoring program discloses existence of abnormal conditions or conditions that might lead to an emergency situation.
8. Requirements of the Monitoring Program may be changed upon a showing that the degree of monitoring is not commensurate with the actual or intended results of such efforts. Such changes shall be effected as deemed necessary by mutual agreement of the Council and the Supply System. Such changes shall be governed by the procedures in this paragraph and shall not be subject to the modification procedures specified in Section II. H. hereof.

D. Habitat Management Plan

The Supply System shall develop management plans that will assure the protection and enhancement of wildlife values on the lands that are acquired to replace lost wetland and upland wildlife habitat values. The management plans will be fully implemented within five years of the commencement of operation of either combustion turbine unit. The Supply System shall provide a draft of the management plan to the Council and its designated representatives for review and approval no later than six months after either unit begins operations.

E. Spill Prevention and Countermeasure Plan

1. The Supply System shall prepare a Spill Prevention and Countermeasure Plan (SPCC) for Council review and approval that is consistent with the requirements of the NPDES Permit in effect for the Satsop Power Plant Site. The SPCC plan is to be approved by a Professional Engineer and include the amount and type of oils(s) and hazardous materials to be stored at the project site, patterns of usage, transfer procedures and other factors which will indicate the magnitude of spill potential. The SPCC plan shall also describe procedures for securing valves, type of gauges, dike size and design, site security, lighting, alarms, spill response materials and equipment, inspection procedures, personnel training, emergency procedures and spill notification requirements. The SPCC plan will also include location and topographic maps, accurate diagrams of the storage tank, dike(s), piping, valves, transfer and other significant components of the oil storage and delivery system. This SPCC plan shall be submitted to the Council and its designated representatives within one year of beginning construction of the Satsop Combustion Turbine Project, and shall be updated a minimum of every two years.
2. Within the above-ground 1.8 million gallon oil storage tank containment dikes, an impervious barrier will be installed to keep spilled oil from entering waters of the state. Design of the impervious tank containment must address stormwater management and be approved by a Professional Engineer.

3. If the oil transfer or loading area is located outside the storage tank containment areas, the area surrounding the oil transfer pad will be adequately curbed and sealed to prevent entry of any spilled oil into the soil, ground water or surface waters. In the alternative, the Supply System may raise the loading area with drainage directed into the diked tank storage area. Either approach selected must be approved by a Professional Engineer, and submitted to the Council for review and approval.

## ARTICLE VI. MISCELLANEOUS PROVISIONS

### A. Project Visitation and Recreation

1. The Supply System agrees to provide visitor information facilities for the energy facilities on the site that are authorized in this Site Certification Agreement.
2. The Supply System agrees to provide replacement of recreational opportunities found by the Council to be adversely affected by project activity. Affected areas may include, but are not limited to, land owned or controlled by Supply System immediately outside the project security area and detached parcels associated with project facilities or routes. The Supply System may impose reasonable health, safety, and security regulations on use of recreational areas.
3. The Supply System agrees to take necessary measures to allow safe uses by members of the public on land and water areas over which the Supply System exercises control and to which public access has been granted.
4. All reporting costs and other costs, directly or indirectly incurred as a function of monitoring or surveillance programs found necessary herein shall be borne by the Supply System.

### B. Social and Economic Impacts

1. The Supply System agrees to monitor primary and secondary socioeconomic impacts of the nuclear projects during construction and to report quarterly to the Council.
2. The Supply System agrees to pay any valid claims filed against it by the state or by any agency or political subdivision of the state, including but not limited to counties, cities and school districts, arising out of an actually incurred or clearly anticipated net financial burden or deficiency substantially caused by primary or secondary socioeconomic or environmental impacts from construction or operation of the project. Any such net financial burden or deficiency shall be calculated by allowing a credit or offset against the total financial burden or deficiency so caused any revenues to the claimant reasonably attributable to construction or operation of the project. With respect to any clearly anticipated net financial burden or deficiency, payment of such claim shall be made to the claimant no later than the time such burden or deficiency is actually incurred. The burden of establishing the validity of any such claim shall be upon the claimant.

3. Any dispute arising out of the provisions of Section VI.B shall be resolved by decision of the Council made pursuant to procedures set forth in RCW 34.04.

C. Decommissioning

The Supply System shall submit for the Council's approval within five (5) years of the execution of this Site Certification Agreement, a plan for decommissioning and disposal of the nuclear project.

D. Discharge of Pollutants

Nothing in this Site Certification Agreement shall be construed to authorize discharge of pollutants from the project to state waters in any fashion other than that authorized in an NPDES Permit issued by Council. All discharges must also comply with the requirements of Chapter 90.48 RCW.

E. Greenhouse Gases and Carbon Dioxide Mitigation

1. The Supply System shall prepare and submit a report to the Council no later than one year prior to each turbine coming on line, that presents and evaluates possible greenhouse gases and carbon dioxide mitigation techniques, and concentrates on those techniques that can offer cost-effective mitigation measures.
2. If a comprehensive federal or state mitigation program is implemented, the Council reserves the right to exercise its authority under that program, considering and appropriately crediting any measures that the Supply System has accomplished.

F. Attachments

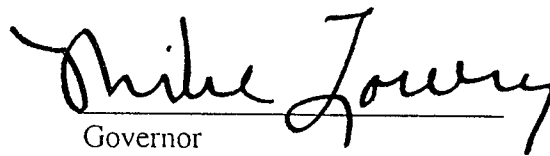
Attachments hereto by this reference are included in the Site Certification Agreement:

- I. Site Legal Description.
- II. Excavation and Erosion Control Measures.
- III. National Pollution Discharge Elimination System Permit.
- IV. Environmental Monitoring Program for the Nuclear Projects.
- V. Water Withdrawal Authorization.
- VI. Contract for Water Supply (with City of Aberdeen).
- VII. Mitigation Measures and Project Conditions.
- VIII. Approval of Notice of Construction and Prevention of Significant Deterioration Application.

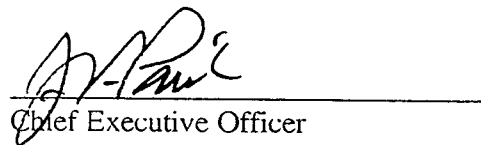
SIGNATURE PAGE

Dated and effective this 21<sup>st</sup> day of May, 1996.

FOR THE STATE OF WASHINGTON

  
Governor

FOR THE WASHINGTON PUBLIC POWER SUPPLY  
SYSTEM

  
Chief Executive Officer



## ATTACHMENT II EROSION AND SEDIMENTATION CONTROL

### I. GENERAL

- A. Supply System shall construct, maintain and operate erosion control devices, retention ponds, equalization pond, settling pond, ditches, dikes, chemical feed system and other structures as required to control runoff and erosion from construction, restoration, and operation activities.
- B. Supply System shall apply vegetative and non-vegetative countermeasures to all temporary construction slopes and ditches to lessen erosion as required to meet State of Washington water quality discharge criteria. Every effort shall be made by Supply System to minimize erosion from excavation and embankment operations, including but not limited to:
  - 1. Construction of temporary berms, dikes and diversion ditches to divert runoff to retention pond(s).
  - 2. Use of extreme caution to limit disturbances of natural areas to a minimum.
  - 3. Sequencing of excavation and embankment operations to maintain natural traps for eroded material and any other measures effective in erosion limitation.
  - 4. Implementation of applicable erosion control measures described in EPA Publication EPA-R2-72-015, "Guidelines for Erosion and Sediment Control Planning and Implementation."
- C. Erosion preventative measures shall be kept current with excavation and filling operations.
- D. Where ground disturbance will occur, the first construction activity shall be the installation of the erosion control system to control runoff from all disturbed areas.
- E. Construction activities on the banks of or within creeks or rivers shall be done only during the period from July 1 to September 30, or as specified by EFSEC resolution.

### II. EXISTING EROSION CONTROL SYSTEM

#### A. Collection System

The collection system for the central site area of the Satsop Site was designed to collect runoff at the perimeter of the central area. The runoff is routed northward to the equalization pond.

B. Equalization and Settling Ponds

The equalization pond was designed and constructed to hold runoff from the central site area of the Satsop Site from a 100 year, 24 hour rainfall event (5.5 inches in 24 hours). Water from the equalization pond may be treated if necessary to remove sediment. Equalization pond discharge is normally routed to the settling pond, where discharge to the Chehalis River may occur through a point identified in the NPDES Permit. When rainfall exceeds the design capacity of the equalization pond, discharge may be through an emergency overflow pipeline into Fuller Creek.

C. Hyatt Creek

Within the Hyatt Creek drainage area, two erosion control dam structures were built to retain sediment prior to the creek discharging to the Chehalis River. These structures have been retained; however, no further treatment is required.

D. Fuller Creek

Within the Fuller Creek drainage area, erosion control dam structures were placed to retain sediment prior to the creek discharging to the Chehalis River. The F-2 and F-3 structures remain. However, no further treatment is required.

E. Cooley Drainage Area

On the northwest side of the Cooley Laydown area, an erosion control dam structure was placed to retain sediment prior to the laydown drainage discharging to the Chehalis River. This structure remains; however, no further treatment is required of the runoff.

F. Stein Creek

Within the Stein Creek drainage area, erosion control dam structures were built to retain sediment prior to the creek discharging to Workman Creek. These structures have been retained; however, no further treatment is required.

G. Purgatory Creek

Within the Purgatory Creek drainage area, erosion control dam structures were built to retain sediment prior to the creek discharging to Workman Creek. These structures have been retained; however, no further treatment is required.

### III. EROSION CONTROL TECHNIQUES DURING CONSTRUCTION

#### A. Slope Treatment

1. Where slope construction is required, slopes will be constructed at a 3:1 (horizontal to vertical) grade. At 25 foot intervals, a horizontal berm will be constructed with a ditch to direct runoff from each level of the slope to a retention basin. Ditches must be placed at every berm to limit the distance water can flow down the slopes and cause erosion.
2. Incomplete slopes to be left unworked shall be immediately protected by systematically track-walking up and down the slope with a wide tractor bulldozer, causing the tracks to be overlapping. Straw mulch will be placed on the slope to provide additional protection if the slope is to be left unworked for a long period of time.
3. Completed slopes, shaped to final grade shall be protected as follows:
  - a. The slope shall be track-walked in accordance with Paragraph III.A.2.
  - b. Topsoil shall be evenly spread over the slope.
  - c. The slope shall be seeded and fertilized in accordance with Paragraphs III.B and III.C.
  - d. The slope shall be mulched after seeding with straw or wood cellulose fiber mulch.
  - e. When seasonal conditions are not conducive to seeding (see Paragraph III.B), the slope shall be protected in accordance with Paragraph III.A.2 until weather is conducive to seeding.

#### B. Seeding

1. Seed shall conform to the standards for Certified grade seed or better, as outlined by the State of Washington Department of Agriculture, "Rules for Seed Certification," latest edition.
2. Seed mix shall follow the recommendations of the Department of Fish and Wildlife and the Soil Conservation Service.
3. Seed may be sown by one of the following methods:
  - a. A hydroseeder which utilizes water as the carrying agent, and maintains continuous agitation through paddle blades. It shall have an operating capacity sufficient to agitate, suspend and mix into a homogeneous slurry the specified amount of seed and water or other material. Distribution and discharge lines shall be large enough to prevent stoppage and shall be equipped with a set of hydraulic discharge spray nozzles that will provide a uniform distribution of the slurry.

- b. Blower equipment with an adjustable disseminating device capable of maintaining a constant, measured rate of material discharge that will ensure an even distribution of seed.
  - c. Power train drills or seeders.
  - d. Hand methods in areas where the above methods are impractical.
- 3. Seeding generally will be performed from March 15 to June 30 and September 1 to October 30. However, if weather conditions indicate seeding will be successful at other times, seeding may be performed throughout the year. Seeding shall not be done during windy weather or when the ground is frozen, excessively wet or otherwise untillable.
  - 4. Supply System shall protect all seeded areas against vehicle and pedestrian traffic.
  - 5. Areas damaged through any cause shall be reseeded, refertilized and remulched.

C. Fertilizing

- 1. Fertilizer specifications shall follow the recommendations of the Department of Fish and Wildlife and the Soil Conservation Service. Fertilizer shall be a standard commercial grade of organic or inorganic fertilizer. All fertilizers shall be furnished in standard unopened containers with weight, name of plant nutrients, and manufacturer's guaranteed statement of analysis clearly marked, all in accordance with State and Federal laws.
- 2. Acceptable commercial fertilizer may be supplied in one of the following forms:
  - a. A dry free-flowing granular fertilizer, suitable for application by agricultural fertilizer spreader.
  - b. A soluble fertilizer ground to fineness that will permit complete suspension of insoluble particles in water, suitable for application by power sprayer.
  - c. A granular or pelleted fertilizer, suitable for application by blower equipment.
  - d. A tablet form fertilizer with a two year release period.
- 3. All areas to receive seed shall be fertilized.

D. Mulching

- 1. Mulch material shall be evenly applied on seeded areas.

2. All straw mulch material shall be in an air dried condition free of noxious weeds, weed seeds, and other materials detrimental to plant life. Straw shall be seasoned before baling or loading. Straw mulch so provided shall be suitable for spreading with mulch blower equipment.
  - a. Straw mulch on slopes steeper than 2H:1V shall be secured by crimping or asphalt emulsion.
  - b. Distribution of straw mulch material shall be by means of a mulch spreader that utilizes forced air to blow mulch material on seeded areas. In spreading straw mulch, the spreader shall not cut or bend the straw into short stalks.
3. Wood cellulose fiber mulch shall be specifically processed wood fiber containing no growth or germination inhibiting factors and shall be dyed in a suitable color to facilitate inspection of the placement of the material. It shall be manufactured in such a manner that after addition and agitation in slurry tanks with water, the fibers in the material will become uniformly suspended to form a homogeneous slurry. When hydraulically sprayed on the ground, the material shall allow the absorption and percolation of moisture.

E. Topsoil

1. After the topsoil has been spread evenly, the area shall be systematically track-walked and all large clods, hard lumps, rocks one inch in diameter and larger and litter shall be raked up and removed.
2. Topsoil shall not be placed when the ground or topsoil is frozen, excessively wet, or if detrimental to the work.

F. Straw Bales

Straw bales shall be bound with nylon or wire and anchored to the ground with steel pins, fence posts, rebars or wood pickets. The bales shall be installed so that runoff cannot escape freely under the bales.

G. Jute Matting

1. Jute matting shall be of a uniform open plain weave of unbleached, single jute yarn treated with a fire retardant chemical. The yarn shall be of a loosely twisted construction and shall not vary in thickness by more than 1/2 of its normal diameter.
2. Jute matting shall be unrolled parallel to the flow of water immediately following the establishment of the finished grade. Where more than one strip of jute matting is required to cover the given area, there shall be an overlap of adjacent mats. The up-slope end of each strip of matting shall be staked and buried in a trench with the soil firmly tamped against the mat.

3. Matting must be spread evenly and smoothly and in contact with the soil at all points.
4. Jute matting shall be held in place by approved wire staples, pins, spikes, or wooden stakes driven vertically into the soil. Length of fastening devices shall be sufficient to securely anchor matting against the soil and driven flush with the finished grade.

#### H. Filter Fabric Fences

Filter fabric fences shall be constructed with fence posts, timber, filter fabric and welded wire fabric. Filter fabric shall be Marafi 100X, Typar, or equivalent.

#### I. Drainage Ditches

1. Drainage ditches will vary in size depending upon the volume of water and rate of flow each ditch is required to handle.
2. Ditches will be lined with grass, quarry spall, jute matting or other suitable material to prevent erosion of the ditch sides if needed. Drainage ditches along the construction area with slopes greater than 0.05 ft/ft shall be lined with quarry spall. Berm ditches and intercept ditches shall be lined with jute matting in accordance with Paragraph G. Energy dissipators will be installed at the outfall of ditches where necessary.

#### J. Retention Ponds

1. Runoff from construction areas will be collected and treated in retention ponds as necessary to prevent sediment from reaching creeks and rivers.
2. Retention ponds will be designed, constructed, and operated to treat the volume of runoff associated with a 10 year, 24 hour rainfall, so that all discharges meet applicable effluent and water quality limitations. Additional depth will be provided to handle all settled solids accumulated over the construction period, lessening the need for periodic cleaning of the pond bottoms.
3. Inflow structures to each pond will be provided to minimize any turbulent flow or churning that may disrupt the settling process.

### IV. MONITORING

- A. Inspecting, testing and monitoring the erosion and sedimentation control program is to be part of the implementation.
- B. Retention basins will be periodically monitored.

- C. The entire system of erosion control structures and ditches will be inspected periodically to ensure they are kept in proper condition.
- D. In the event that improvements are necessary, the procedures employed for system improvement will adhere to best practicable procedures.

D:EFSECattachii

ATTACHMENT III

Page 1 of 26  
Permit No. WA-002496-1  
Issuance Date: 5-21-96  
Expiration Date: 5-21-01

NATIONAL POLLUTANT DISCHARGE ELIMINATION  
SYSTEM WASTE DISCHARGE PERMIT

State of Washington  
Energy Facility Site Evaluation Council  
Olympia, Washington 98504

In Compliance With the Provisions of  
Chapters 80.50 and 90.48 Revised Code of Washington  
and  
The Federal Water Pollution Control Act  
(The Clean Water Act)

WASHINGTON PUBLIC POWER SUPPLY SYSTEM  
P.O. Box 1223  
Elma, Washington 98541-1223

Plant Location:  
471 Lambert Road  
Elma, Washington 98541

Receiving Water:  
Chehalis River

Industry Type:  
Combined Cycle Combustion Turbine  
Electric Generating Plant  
(CT Units No. 1 and No. 2)

Discharge Location:  
Outfall 001 at RM 19.7  
Latitude: 46° 58'19" N  
Longitude: 123° 29'19" W

Water Body ID No. WA-22-4040

Outfall 002 at RM 21.8  
Latitude: 46° 58'30" N  
Longitude: 123° 27'15" W

The above-named municipal corporation is authorized to discharge in accordance with the special and general conditions which follow.

Approved:

Date: 5/21/96

/s/ Frederick S. Adair  
Chairman, Energy Facility Site Evaluation Council



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# SPECIAL CONDITIONS

## S1. EFFLUENT LIMITATIONS

### A. Outfall 001: Industrial Wastewater

#### EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

<u>Parameter</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Ammonia, total as N	930 mg/l, 1,008 lb/day	46 mg/l, 50 lb/day	Weekly	24-hour comp.
Chlorine, total				
Residual	95 µg/l, 0.10 lb/day	47 µg/l, 0.051 lb/day	Weekly	Grab
Cadmium, total	5.8 µg/l, 0.063 lb/day	2.9 µg/l, 0.003 lb/day	Weekly	24-hour comp.
Copper, total	30 µg/l, 0.0325 lb/day	15 µg/l, 0.016 lb/day	Weekly	24-hour comp.
Iron, total	82 mg/l, 89 lb/day	40 mg/l, 43.4 lb/day	Weekly	24-hour comp.
Lead, total	52 µg/l, 0.054 lb/day	26 µg/l, 0.028 lb/day	Weekly	24-hour comp.
Zinc, total	229 µg/l, 0.25 lb/day	114 µg/l, 0.12 lb/day	Weekly	24-hour comp.
Temperature (Note 1)	---	---	Continuous	Direct
pH (Note 2)	Between 6.0 and 8.5 (Note 3)	---	Continuous	Direct
Flow	0.74 MGD	0.66 MGD	Continuous	Direct
Polychlorinated biphenyl compounds (Note 4)	---	---	---	---

Note 1 The discharge temperature shall be such that the applicable Water Quality Standards for temperature will be complied with at the edge of the dilution zone. Temperature shall not exceed 18.0 degrees Centigrade. Temperature increases shall not, at any time, exceed  $t = 28 / (T + 7)$ , as described in WAC 173-201A-030 for Class A waters. For purposes hereof, "t" represents the maximum permissible temperature increase measured at a mixing zone boundary and "T" represents the background temperature as measured at a point unaffected by the discharge and representative of the highest water temperature in the vicinity of the discharge. When natural conditions exceed 18.0 degrees Centigrade, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3 degree Centigrade.

Note 2 Permittee shall include alarm systems for pH control to provide indication of any variance from established limits. If the continuous pH instrumentation malfunctions, grab samples taken every 6 to 10 hours shall be substituted.

Note 3 The total time during which pH values are outside this range shall not exceed 7 hours and 26 minutes in any calendar month, and no individual excursion shall exceed 60 minutes. An excursion is an unintentional and temporary incident of pH exceedance. No excursions greater than 9.5 or lower than 5.5 are allowed.

Note 4 There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

- B. Outfall 001A: Low Volume Waste Sources  
Discharge of low volume waste sources to Outfall 001 (Notes 5 and 6)

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

<u>Parameter</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total suspended solids	100.0 mg/l	30.0 mg/l	Each discharge	Grab
Oil and grease	20.0 mg/l	15.0 mg/l	Each discharge	Grab

Note 5 The term "low volume waste sources" means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations are otherwise established in 40 CFR 423. Low volume waste sources include, but are not limited to, wastewaters from wet scrubber air pollution control systems, ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastes are not included.

Note 6 Permittee shall mix effluent from this source with cooling water blowdown when the cooling tower is operational. When the cooling tower is not operational, low volume wastes must be retained or a minimum dilution flow of 200 gpm must be provided from the recirculated cooling waste inventory or plant makeup water supply.

- C. Outfall 001B: Metal Cleaning Wastes  
Discharge of metal cleaning wastes to Outfall 001

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

<u>Parameter</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total suspended solids	100.0 mg/l	30.0 mg/l	Each discharge	Grab
Oil and grease	20.0 mg/l	15.0 mg/l	Each discharge	Grab
Copper, total	1.0 mg/l	1.0 mg/l	Each discharge	Grab
Iron, total	1.0 mg/l	1.0 mg/l	Each discharge	Grab

- D. Outfall 001C: Once Through Cooling Water  
Discharge of once through cooling water to Outfall 001

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

<u>Parameter</u>	<u>Maximum Concentration</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total residual chlorine (Note 7)	0.20 mg/l	Weekly	24-hour comp.

Note 7 Total residual chlorine may not be discharged from any single generating unit for more than 2 hours per day unless the discharger demonstrates to the permitting authority that discharge for more than 2 hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted.

E. Outfall 001D: Cooling Tower Blowdown  
Discharge of cooling tower blowdown to Outfall 001

<u>Parameter</u>	<u>EFFLUENT LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Free available chlorine (Note 8)	0.5 mg/l	0.2 mg/l	Continuous or twice per treatment (Note 9)	Direct Grab
The 126 priority pollutants (Appendix A to 40 CFR 423) contained in chemicals added for cooling tower maintenance	(Note 10)	(Note 10)	Weekly	Grab
Except: Chromium, total	0.2 µg/l	0.2 µg/l	Weekly	Grab
Zinc, total	1.0 µg/l	1.0 µg/l	Weekly	Grab

Note 8 Neither free available nor total residual chlorine may be discharge from any unit for more than 2 hours in any 1 day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Energy Facility Site Evaluation Council (EFSEC) that the units cannot operate below this level of chlorination.

Note 9 If discharge is continued during the chlorination cycle, continuous amperometric analysis shall be used. (If the monitoring equipment malfunctions, grab samples taken every 4 hours shall be substituted.) A grab sample shall be taken at least weekly to demonstrate continuous monitor performance. If discharge is terminated during chlorination chlorination, amperometric titration of grab samples may be used to verify the total residual chlorine concentration.

Note 10 No detectable amount

F. Outfall 002: Stormwater (Notes 11 and 12)

Beginning on the effective date of this permit and lasting through the expiration date, the Washington Public Power Supply System is authorized to discharge effluent from Outfall 002 subject to meeting the following limitations and monitoring requirements:

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

<u>Parameter</u>	<u>Maximum Concentration</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total suspended solids (mg/l)	50	Note 13	Note 14
Settleable solids (ml/l)	0.1	Note 13	Note 14
pH	Between 6.0 and 8.5 at all times	Note 13	Note 14

Note 11 Any untreated overflow from facilities designed, constructed, and operated to treat the volume of material storage runoff and construction runoff which results from a 100-year 24-hour rainfall event (5.5 inches per 24 hours) shall not be subject to the limitations above for total suspended solids, settleable solids, and pH.

Note 12 During the preservation and deconstruction of Nuclear Project No. 3, accumulations of stormwater in any basins, tanks or sumps may be discharged to the equalization pond. Any non-stormwater discharges must meet the following limits prior to entering the equalization pond: copper 1.0 mg/l, chromium (total) 0.05 mg/l, zinc 5.0 mg/l, and iron 1.0 mg/l.

Note 13 Once per day when there is discharge from the storm collector basins.

Note 14 Grab within 2 hours after discharge begins.

S2. MONITORING AND REPORTING REQUIREMENTS

The Permittee shall monitor the operations and efficiency of all treatment and control facilities and the quantity and quality of the waste discharged as specified in Special Condition S1.

A. Reporting

Monitoring results obtained during the previous month shall be summarized and reported on a Discharge Monitoring Report (DMR) (EPA 3320-1) postmarked no later than the 28th day following the end of the month (or the end of the quarter during the preservation and deconstruction periods for Nuclear Project No. 3). Duplicate signed copies of the DMRs shall be submitted to the Council and EPA at the following addresses:

EFSEC  
P.O. Box 43172  
Olympia, WA 98504-3172

US. EPA Region X  
Attn: Water Compliance Section WD-135  
200 - 6th Avenue  
Seattle, WA 98101

B. Recording of Results

For each measurement or sample taken, the Permittee shall record the following information: 1) the date, exact location, and time of sampling; 2) the dates the analyses were performed; 3) who performed the analyses; 4) the analytical techniques or methods used; and 5) the results of all analyses.

C. Representative Sampling

Samples and measurements taken to meet the requirements of these conditions shall be representative of the volume and nature of the monitored discharge, including representative sampling of any unusual discharge or discharge conditions (e.g., bypasses, upsets, and maintenance-related conditions affecting effluent quality).

D. Test Procedures

All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless otherwise approved in writing by the Council, conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136.

E. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of discharges with flow limitations. Each device shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendation or a minimum frequency of at least one calibration every 18 months.

F. Records Retention

The Permittee shall retain for a minimum of 3 years all records of monitoring activities and results, including all reports of recordings from continuous monitoring instrumentation. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Council.

G. Laboratory Accreditation

All monitoring data, except for flow, temperature, settleable solids, conductivity, pH, and internal process control parameters shall be prepared by a laboratory registered or accredited under the provisions of Accreditation of Environmental Laboratories, Chapter 173-50 WAC. Conductivity and pH shall be accredited if the laboratory must otherwise be registered and accredited.



S3. SOLID WASTE DISPOSAL

A. Residual Solids Handling

The Permittee shall handle and dispose of all solid waste material in a manner which prevents pollution of state ground or surface water.

B. Solid Waste Control Plan

The Permittee shall submit a revised solid waste control plan to the Council for review and approval no later than 12 months after permit is amended. This plan shall address all solid wastes with the exception of radioactive waste and those solid wastes regulated by Chapters 463-40 and 173-303 WAC (Dangerous Wastes). The plan shall include a general description and the composition, source, generation rate and frequency, and disposal methods of these solid wastes. This plan shall be consistent with Chapter 173-304 WAC and any approved local solid waste management plan. The Permittee shall comply with the plan as approved by the Council. The Permittee shall submit an update of the solid waste control plan with the application for permit renewal. This permit condition is based on state law, not federal NPDES program regulations.

C. Sanitary Wastes

Sanitary wastes generated on the main site area shall be collected and treated at the Supply System's package waste treatment plant. Alternatively, sanitary wastes may be diverted and treated at a septic tank system during the preservation and deconstruction periods for WNP-3. Sanitary wastes for the Combustion Turbine Project site shall be treated in a septic tank system and discharged to a drain field located at the Combustion Turbine Project site. Waste treatment and discharges to a drain field shall be in accordance with the manufacturer's instructions and Supply System procedures. All sewage effluent discharges shall meet current state regulatory standards in 248-90 WAC or 173-216 WAC.

S4. SPILL PLAN

A. SPCC Plan and Hazardous Waste Management Procedures

The Satsop Site Spill Prevention, Control, and Countermeasure Plan and Hazardous Waste Management Procedures were approved by Council Resolution No. 237. The spill plan shall be updated and submitted to the Council for review within 6 months after Notice to Proceed on the Combustion Turbine Project has been issued.

The SPCC Plan shall provide for the prevention, containment, and control of spills or unplanned discharges of: 1) petroleum (oil), 2) hazardous substances covered by 40 CFR Part 302, and 3) materials which when spilled or otherwise released into the environment are designated Dangerous Waste (DW) or Extremely Hazardous Waste (EHW) by the procedures set forth in WAC 173-303-070. The SPCC Plan shall include the following elements:

1. A description of the reporting system which will be used to alert responsible managers and legal authorities in the event of a spill.
2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) intended to prevent, contain, or treat spills of these materials.
3. A list of all oil and chemicals used, processed, or stored at the facility which may potentially be spilled into state waters.

B. Plan Updates

The SPCC Plan shall be updated and submitted to the Council every 2 years. The plan and any supplements shall be followed throughout the term of the permit.

S5. SAMPLING FOR POLLUTANTS OF CONCERN

A. Priority Pollutant Scan

The permittee shall take a composite sample of the discharge from Outfall 001 and conduct a priority pollutant scan to determine the characteristics of the discharge water and report the results to the Council within 180 days from initiation of commercial operation of the Combustion Turbine Project. The results of the sampling shall be summarized and reported on a Discharge Monitoring Report (EPA 3320-1).

B. Future Monitoring Requirements

The Council will review the sample results to determine if additional testing or monitoring is required.

The Council, working with the Permittee, will take the necessary measures to identify effluent characteristics to ensure discharges are consistent with water quality standards and the conditions of this permit.

S6. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. Plan Development Deadlines

Prior to initiation of commercial operation of the Combustion Turbine Project, the Permittee shall develop, implement, and comply with a SWPPP. The Permittee shall implement all elements of the SWPPP including operational, treatment, and source control best management practices (BMPs), as well as erosion and sediment control BMPs determined necessary.

B. General Requirements

1. Submission, Retention, and Availability:

The Permittee shall submit a copy of the SWPPP to EFSEC for review, comment, and approval. The SWPPP shall be retained on-site and available throughout the operational life of the facility.

2. Modifications:

The Permittee shall modify the SWPPP whenever there is a change in design, construction, operation, or maintenance which causes the SWPPP to be less effective in controlling the pollutants. Whenever the description of potential pollutant sources or the pollution prevention measures and controls identified in the SWPPP are inadequate, the SWPPP shall be modified, as appropriate, within 2 weeks of such determination. The proposed modifications to the SWPPP shall be submitted to EFSEC at least 30 days in advance of implementing the proposed changes unless EFSEC approves immediate implementation. The Permittee shall provide for implementation of any modifications to the SWPPP in a timely manner.

3. Preparation:

The Permittee shall prepare the SWPPP in accordance with the guidance provided in Stormwater Management for Industrial Facilities (EPA 1992, EPA 832-R-92-006). The plan shall contain the following elements:

- a. An assessment and description of existing and potential pollutant sources
- b. A description of the operational BMPs
- c. A description of selected source-control BMPs
- d. A description of erosion and sediment control BMPs
- e. A description of any treatment BMPs
- f. An implementation schedule

S7. EFFLUENT MIXING STUDY

A. Work Plan

The Permittee shall prepare a work plan for the determination of the dilution ratio of effluent to receiving water at the edge of the acute dilution zone and at the edge of the chronic dilution zone for Outfall 001. The plan shall include an evaluation of critical water conditions and shall describe how dilution will be determined for normal productions and critical receiving water conditions. The work plan shall be submitted to EFSEC for review and approval within 6 months after Notice to Proceed on the Combustion Turbine Project has been issued.

B. Mixing Study

The Permittee shall conduct the mixing study within 180 days after EFSEC approval or the start of commercial operation, whichever is later. The Permittee shall apply the dilution ratios determined through the study to effluent water quality data to estimate pollutant concentrations (including temperature) in the receiving water at the edges of the dilution zones. A written report documenting the study and study results shall be submitted to EFSEC within 90 days after the completion of the study.

S8. **OUTFALL EVALUATION**

The Permittee shall inspect the submerged portion of the outfall line and diffuser to evaluate and document its integrity. The outfall evaluation shall be submitted with the mixing study.

S9. **RECEIVING WATER STUDY**

The Permittee shall prepare a plan to monitor receiving water temperature in a location upstream of and unaffected by the outfalls. The purpose of the temperature monitoring is to allow the Permittee to estimate the effluent's effect on receiving water temperature. The proposal shall be submitted to EFSEC within 180 days after receiving Notice to Proceed. Receiving water temperature monitoring shall be implemented prior to commercial operation or within 180 of EFSEC approval of the proposal, whichever is later.

S10. **WHOLE EFFLUENT TOXICITY**

The Water Quality Standards for Surface Waters require that the effluent not cause toxic effects in the receiving waters. Many toxic pollutants cannot be detected using commonly available detection methods. However, toxicity can be measured directly by exposing living organisms to the wastewater in laboratory tests and measuring the response on the organisms. Toxicity tests measure the aggregate toxicity of the whole effluent, therefore this approach is called whole effluent toxicity (WET) testing. Some WET tests measure acute toxicity and other WET tests measure chronic toxicity.

S11. **ACUTE TOXICITY**

A. Effluent Characterization

The Permittee shall conduct acute toxicity testing on the final effluent to determine the presence and amount of acute (lethal) toxicity. All of the acute toxicity tests listed below shall be conducted on each sample taken for effluent characterization. Effluent characterization for acute toxicity shall be conducted quarterly for 1 year. Acute toxicity testing shall follow protocols, monitoring requirements, and quality assurance/quality control procedures specified in this section. The Permittee may perform acute toxicity effluent screening testing during effluent characterization using only 100% effluent and a control. If any effluent screening test has less than 80% survival in 100% effluent, the Permittee shall resample immediately and conduct another acute toxicity test using dilution series consisting of a minimum of five concentrations and a control to estimate.

the concentration lethal to 50% of the organisms ( $LC_{50}$ ). The percent survival in 100% effluent shall also be reported from tests with a series of concentrations.

Testing shall begin within 60 days of the effective date of the permit. A written report shall be submitted to the Council within 60 days after each of the test results are final. A final effluent characterization summary report shall be submitted to EFSEC within 90 days after the last monitoring test results are final. This summary report shall include a tabulated summary of the individual test results and any information on sources of toxicity, toxicity source control, correlation with effluent data, and toxicity treatability which is developed during the period of testing.

Acute toxicity tests shall be conducted with the following species and protocols:

1. Fathead minnow, *Pimephales promelas* (96-hour static-renewal test, method: EPA/600/4-90/027F)
2. Daphnid, *Ceriodaphnia dubia*, *Daphnia pulex*, or *Daphnia magna* (48-hour static test, method: EPA/600/4-90/027F). The Permittee shall choose one of the three species and use it consistently throughout effluent characterization.
3. Rainbow trout, *Oncorhynchus mykiss* (96-hour static-renewal test, method: EPA/600/4-90/027F).

The Permittee shall also conduct the rapid screening test listed in subsection E, below, on each sample during effluent characterization. The rapid screening test result shall be reported with the results of the acute toxicity tests conducted on that sample to provide a correlation.

B. Effluent Limit for Acute Toxicity

The Permittee has an effluent limit for acute toxicity if, after completing 1 year of effluent characterization, either:

1. The median survival of any species in 100% effluent is below 80%, or
2. Any one test of any species exhibits less than 65% survival in 100% effluent.

The effluent limit for acute toxicity is no acute toxicity in a test concentration representing the acute critical effluent concentration (ACEC). The ACEC means the maximum concentration of effluent during critical conditions at the boundary of the zone of acute criteria exceedance assigned pursuant to WAC 173-201A-100.

If the Permittee has an effluent limit for acute toxicity and the ACEC is not known, then effluent characterization for acute toxicity shall continue until the time an ACEC is known. Toxicity testing conducted during an effluent characterization extended past 1 year until an ACEC has been determined shall be performed using each one of the tests listed in subsection A above on a rotating basis. When an ACEC has been

determined, the Permittee shall immediately complete all applicable requirements in subsections C, D, and F.

If no effluent limit is required at the end of 1 year of effluent characterization, then the Permittee shall stop effluent characterization and begin to conduct the activities in subsection E even if the ACEC is unknown.

C. Monitoring for Compliance With an Effluent Limit for Acute Toxicity

Monitoring to determine compliance with the effluent limit shall be conducted quarterly for the remainder of the permit term using, on a rotating basis, each of the species listed in subsection A. Monitoring shall be performed using 100% effluent, the ACEC, and a control. The Permittee shall schedule the toxicity tests in the order listed in the permit unless EFSEC notifies the Permittee in writing of another species rotation schedule. The percent survival in 100% effluent shall be reported for all compliance monitoring.

Compliance with the effluent limit for acute toxicity means no statistically significant difference in survival between the control and the test concentration representing the ACEC. The Permittee shall immediately implement subsection D if any acute toxicity test conducted for compliance monitoring determines a statistically significant difference in survival rates between the control and the ACEC using hypothesis testing at the 0.0 level of significance (Appendix H, EPA/600/4-89/001). If the difference in survival between the control and the ACEC is less than 10%, the hypothesis test shall be conducted at the 0.01 level of significance.

D. Response to Noncompliance With an Effluent Limit for Acute Toxicity

If the Permittee violates the acute toxicity limit in subsection B, the Permittee shall begin additional compliance monitoring within 1 week of receiving the test results. This additional monitoring shall be conducted weekly for four consecutive weeks using the same test and species as the failed compliance test. Testing shall determine the LC<sub>50</sub> and effluent limit compliance. The discharger shall return to the original monitoring frequency in subsection C after completion of the additional compliance monitoring.

If the Permittee believes that a test indicating noncompliance will be identified by EFSEC as an anomalous test result, the Permittee may notify EFSEC that the compliance test result might be anomalous and that the Permittee intends to take only one additional sample for toxicity testing and wait for notification from EFSEC before completing the additional monitoring required in this subsection. The notification to EFSEC shall accompany the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous. The Permittee shall complete all of the additional monitoring required in this subsection as soon as possible after notification by EFSEC that the compliance test result was not anomalous. If the one additional sample fails to comply with the effluent limit for acute toxicity, then the Permittee shall proceed without delay to complete all of the additional monitoring required in this subsection. The one additional test result shall replace the compliance

test result upon determination by EFSEC that the compliance test result was anomalous.

If all of the additional compliance monitoring conducted in accordance with this subsection complies with the permit limit, the Permittee shall search all pertinent and recent facility records (operating records, monitoring results, inspection records, spill reports, weather records, production records, raw material purchases, pretreatment records, etc.) and submit a report to EFSEC on possible causes and preventive measures for the transient toxicity event which triggered the additional compliance monitoring.

If toxicity occurs in violation of the acute toxicity limit during the additional compliance monitoring, the Permittee shall submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to EFSEC within 60 days after test results are final. The TI/RE plan shall be based on 173-205-100(2) WAC. The TI/RE plan shall address areas where adequate guidance, procedures, or protocols are not available for implementation of the plan. The Permittee shall submit a revised TI/RE plan, in accordance with EFSEC comments, within 30 days after receipt of EFSEC comments.

E. Monitoring When There Is No Permit Limit for Acute Toxicity

The Permittee shall test final effluent once in the summer and once in the winter immediately prior to submission of the application for permit renewal. All species used in the initial acute effluent characterization or substitutes approved by EFSEC shall be used and results submitted to EFSEC as a part of the permit renewal application process.

In consideration of the Permittee's potential to have toxicity occur and cause receiving water impacts the following monitoring is required. The Permittee shall conduct 24-hour acute rapid screening tests using:

1. *Brachionus* sp. (ASTM E 1440-91)
2. Fathead minnow, *Pimephales promelas* and a Daphnid (*Ceriodaphnia dubia*, *Daphnia pulex*, or *Daphnia magna*) on an alternating schedule (24-hour static test, method: EPA/600/4-90/027F).

A minimum of 40 organisms shall be used in both the control and 100% effluent. Tests shall be conducted monthly and have a maximum acceptable mortality rate of 0.20 in 100% effluent. The mortality rate is determined by WAC 173-205-120(2)(b).

When a rapid screening test results in a mortality rate greater than 0.20, the Permittee shall retest with all species and durations used in the acute effluent characterization in subsection A and actively investigate the source of toxicity. The toxicity test and investigation results shall be reported to the EFSEC within 30 days of the rapid screening test failure.

## S12. CHRONIC TOXICITY

### A. Effluent Characterization

The Permittee shall conduct chronic toxicity testing on the final effluent. The chronic toxicity tests listed below shall be conducted on each sample taken for effluent characterization.

Testing shall begin within 60 days of the permit effective date. A written report shall be submitted to the Council within 60 days after each of the test results are final. A final effluent characterization summary report shall be submitted to the Council within 90 days after the last monitoring test results are final. This summary report shall include a tabulated summary of the individual test results and any information on sources of toxicity, toxicity source control, correlation with effluent data, and toxicity treatability which is developed during the period of testing.

Effluent testing for chronic toxicity shall be conducted biannually for 1 year. The Permittee shall conduct chronic toxicity testing during effluent characterization on serial dilutions of effluent in order to determine the  $IC_{50}$  or  $EC_{50}$ . This series of dilutions shall include the ACEC. The Permittee shall compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.

Chronic toxicity tests shall be conducted with the following species and the most recent version of the following protocols:

1. Fathead minnow, *Pimephales promelas* (EPA/600/4-89/001)
2. Water flea, *Ceriodaphnia dubia* (EPA/600/4-89/001)
3. Alga, *Selenastrum capricornutum* (EPA/600/4-89/001)

The Permittee shall also conduct the rapid screening test listed in subsection E, below, on each sample during effluent characterization. The rapid screening test result shall be reported with the results of the chronic toxicity tests conducted on that sample to provide a correlation.

### B. Effluent Limit for Chronic Toxicity

After completion of effluent characterization, the Permittee has an effluent limit for chronic toxicity if any test conducted for effluent characterization shows a significant difference between the control and the ACEC at the 0.05 level of significance using hypothesis testing (Appendix H, EPA/600/4-89/001). In this event, the Permittee shall complete all applicable requirements in subsections C and D below.

If no significant difference is shown between the ACEC and the control in any of the chronic toxicity tests, the Permittee has no effluent limit for chronic toxicity and only subsection E applies.



The effluent limit for chronic toxicity is no toxicity detected in a test concentration representing the chronic critical effluent concentration (CCEC). CCEC means the maximum concentration of effluent allowable at the boundary of a mixing zone assigned pursuant to WAC 173-201A-100.

C. Monitoring Compliance With an Effluent Limit for Chronic Toxicity

Monitoring to determine compliance with the effluent limit shall be conducted biannually for the remainder of the permit term using, on a rotating basis, each of the species listed in subsection A. Monitoring shall be performed using the CCEC, the ACEC, and a control. The Permittee shall schedule the toxicity tests in the order listed in the permit unless EFSEC notifies the Permittee in writing of another species rotation schedule.

Compliance with the effluent limit for chronic toxicity means no statistically significant difference in response between the control and the test concentration representing the CCEC. The Permittee shall immediately implement subsection D if any chronic toxicity test conducted for compliance monitoring determines a statistically significant difference in response between the control and the CCEC using hypothesis testing at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in response between the control and the CCEC is less than 20%, the hypothesis test shall be conducted at the 0.01 level of significance.

In order to establish whether the chronic toxicity limit is eligible for removal from future permits, the Permittee shall also conduct this same hypothesis test (Appendix H, EPA/600/4-89/001) to determine if a statistically significant difference in response exists between the ACEC and the control.

D. Response to Noncompliance With an Effluent Limit for Chronic Toxicity

If a toxicity test conducted for compliance monitoring under subsection C determines a statistically significant difference in response between the CCEC and the control, the Permittee shall begin additional compliance monitoring within 1 week from the time of receiving the test results. This additional monitoring shall be conducted monthly for three consecutive months using the same test and species as the failed compliance test. Testing shall determine the  $IC_{50}$  or  $EC_{50}$  and effluent limit compliance. The discharger shall return to the original monitoring frequency in subsection C after completion of the additional compliance monitoring.

If the Permittee believes that a test indicating noncompliance will be identified by EFSEC as an anomalous test result, the Permittee may notify EFSEC that the compliance test result might be anomalous and that the Permittee intends to take only one additional sample for toxicity testing and wait for notification from EFSEC before completing the additional monitoring required in this subsection. The notification to EFSEC shall accompany the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous. The Permittee shall complete all of the additional monitoring required in this subsection as soon as possible after notification by EFSEC that the compliance test result was not anomalous. If the one

additional sample fails to comply with the effluent limit for chronic toxicity, then the Permittee shall proceed without delay to complete all of the additional monitoring required in this subsection. The one additional test result shall replace the compliance test result upon determination by EFSEC that the compliance test result was anomalous.

If all of the additional compliance monitoring conducted in accordance with this subsection complies with the permit limit, the Permittee shall search all pertinent and recent facility records (operating records, monitoring results, inspection records, spill reports, weather records, production records, raw material purchases, pretreatment records, etc.) and submit a report to EFSEC on possible causes and preventive measures for the transient toxicity event which triggered the additional compliance monitoring.

If toxicity occurs in violation of the chronic toxicity limit during the additional compliance monitoring, the Permittee shall submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to EFSEC within 60 days after test results are final. The TI/RE plan shall be based on WAC 173205-100(2). The TI/RE plan shall address areas where adequate guidance, procedures, or protocols are not available for implementation of the plan. The Permittee shall submit a revised TI/RE plan, in accordance with EFSEC comments, within 30 days after receipt of EFSEC's comments.

E. Monitoring When There Is No Permit Limit for Chronic Toxicity

The Permittee shall test final effluent once in the summer and once in the winter immediately prior to submission of the application for permit renewal. All species used in the initial chronic effluent characterization or substitutes approved by EFSEC shall be used and results submitted to EFSEC as a part of the permit renewal application process.

The Permittee shall conduct chronic rapid screening tests using:

1. Bacterial bioluminescence test (Microtox or approved alternate)
2. Rotifer life cycle test (Snell, Terry W. 1992. A 2-D Life Cycle Test With The Rotifer *Brachionus calyciflorus* Environ. Toxicol. Chem. 11: 1249-1257).

Tests shall be conducted monthly and shall be expected to have no statistically significant difference in response between the ACEC and the control using the method in Appendix H of EPA/600/4-89/001 or an equivalent method approved by EFSEC. Whenever a rapid screening test result has a statistically significant difference in response between the ACEC and the control, the Permittee shall retest with all species and durations used in the chronic effluent characterization in subsection A and actively investigate the source of toxicity. The chronic toxicity test and investigation results shall be reported to EFSEC within 30 days of the rapid screening test failure.

S13. PERMIT REOPENER

EFSEC may reopen this permit on the basis of monitoring results or other causes consistent with state and federal regulations and/or to modify or establish specific monitoring requirements, effluent limitations, or other conditions in the permit.

**GENERAL CONDITIONS**

G1. DISCHARGES AUTHORIZED

All discharges and activities authorized herein shall be consistent with the terms and conditions of this permit. Permittee is authorized to discharge those pollutants which are: 1) contained in the untreated water supply, 2) entrained from the atmosphere, or 3) identified in the permit application, except as modified or limited by the special or general conditions of this permit. However, the effluent concentrations in the Permittee's wastewater shall be determined on a gross basis and the effluent limitations in this permit mean gross concentrations, not net addition of pollutants. The discharge of any pollutant more frequently than or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit. The discharge of water treatment additives which were not identified in the permit application shall be subject to Council approval.

G2. PRIORITY POLLUTANTS

No discharge of polychlorinated biphenyl compounds is permitted. There shall be no detectable discharge of priority pollutants (listed in 40 CFR Part 423, Appendix A) contained in chemicals added for water treatment.

G3. DILUTION ZONE

Permittee shall not discharge any effluent which will cause a violation of any applicable State of Washington Water Quality Standards contained in WAC 173-201, as they now exist or hereafter are amended outside the mixing zones whose boundaries are defined below.

A. Outfall Discharge Serial Number 001

1. The boundaries in the vertical plane shall extend from the receiving water surface to the riverbed;
2. The upstream and downstream boundaries shall be 50 feet and 100 feet, respectively, from the center line of the diffuser; and
3. The lateral boundaries shall be 25 feet from the midpoint of the diffuser.

B. Outfall Discharge Serial Number 002

There is no dilution zone for this outfall.

G4. DEFINITIONS

As used in this permit, the following terms are as defined herein:

- A. The "daily maximum" discharge means the total discharge by weight or volume during any calendar day and, where specified, the maximum permissible pollutant concentration.
- B. The "daily average" discharge means the total discharge by weight or volume during a calendar month divided by the number of days in the month that the respective discharges occur. Where less than daily sampling is required by the permit, the daily average discharge shall be determined by the summation of the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.
- C. A "composite sample" is a sample consisting of a minimum of six grab samples collected at regular intervals over a normal operating day and combined proportional to flow, or a sample continuously collected proportional to flow over a normal operating day.
- D. A "grab sample" is an individual sample collected in a time span of less than 15 minutes.
- E. A "direct sample" is an in situ immediate measurement.

G5. TOXIC POLLUTANT DISCHARGES

The Permittee will notify the Council as soon as it knows or has reason to believe that any toxic pollutant not limited by the special conditions of this permit will be discharged on a routine or frequent basis at levels exceeding the notification levels of 40 CFR 122.42(a)(1) or on a non-routine or infrequent basis at levels exceeding the notification levels of 40 CFR 122.42(a)(2).

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

**G7. DUTY TO MITIGATE**

The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

**G8. PROPER OPERATION AND MAINTENANCE**

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes adequate funding, effective performance of preventive maintenance adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

**G9. BYPASS OF TREATMENT FACILITIES**

Per 40 CFR 122.4(m), the bypass or intentional diversion of waste streams from any portion of waste treatment facilities is prohibited except:

1. When the bypass does not cause effluent limitations to be exceeded and it is necessary to perform essential maintenance to assure efficient operation;
2. Where the bypass was unavoidable to prevent loss of life or severe property damage;
3. When there are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime.

Anticipated bypasses, other than those in 1) above, shall be reported to the Council as far in advance as possible for the Council's approval. Unanticipated bypasses shall be reported to the Council in accordance with the procedure specified in General Condition G11 below.

**G10. UPSET CONDITIONS**

According to 40 CFR 122.41(n), an upset is an exceptional incident in which there is unintentional and temporary noncompliance with the technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with the technology-based permit effluent limitations if the Permittee can demonstrate through contemporaneous operating logs or other relevant evidence that:

1. An upset occurred and that the permittee can identify the cause(s) of the upset;
2. The facility was at the time being properly operated;
3. The permittee submitted notice of the upset as required by General Condition G11; and
4. The permittee complied with the remedial measures required under this permit.

**G11. NONCOMPLIANCE REPORTING**

1. The following occurrences of noncompliance shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances:
  - a. Any noncompliance which may endanger health or the environment.
  - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (see General Condition G9).
  - c. Any upset which exceeds any effluent limitation in the permit (see General Condition G10).
  - d. Violation of a maximum daily discharge limitation for any of the pollutants listed in Special Conditions S1.A, S1.B., S1.C., S1.E., or S1.A of this permit.
2. A written report of incidents required to be reported orally within 24 hours of occurrence shall be submitted to the Council within 5 working days of the time that the Permittee becomes aware of the circumstances. The written description shall contain:
  - a. A description of the noncompliance and its cause;
  - b. The period of noncompliance, including exact dates and times;
  - c. The estimated time noncompliance is expected to continue if it has not been corrected; and
  - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
3. The Council may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

**G12. OTHER NONCOMPLIANCE REPORTING**

Instances of noncompliance not required to be reported within 24 hours shall be reported on the discharge monitoring reports (Special Condition S3.A). The reports shall contain the information listed in General Condition G11.

**G13. INSPECTION AND ENTRY**

The Permittee shall allow authorized representatives of EFSEC, upon the presentation of credentials and such other documents as required by law:

1. To enter the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit;
2. To have access to and copy at reasonable times any records that must be kept under the terms of this permit;
3. To inspect at reasonable times any monitoring equipment or method of monitoring required in this permit;
4. To inspect at reasonable times any collection, treatment, or discharge facilities; and
5. To sample at reasonable times any discharge of pollutants.

**G14. PERMIT MODIFICATIONS**

The Permittee shall notify EFSEC when facility expansions, production increases, or process modifications will 1) result in a new or substantially increased discharges of pollutants or a change in the nature of the discharge of pollutants, or 2) violate the terms and conditions of this permit.

**G15. PERMIT MODIFIED OR REVOKED**

This permit may be modified, revoked or reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the Council shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

G16. DUTY TO PROVIDE INFORMATION

The Permittee shall furnish to EFSEC, within a reasonable time, any information which the Council may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Council, upon request, copies of records required to be kept by this permit.

G17. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

A. Toxic Pollutants

The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

B. Penalties for Violations of Permit Conditions

Violations of conditions of this permit are subject to enforcement actions and penalties as provided for in Chapter 80.50 RCW. Except as provided in permit Conditions G9, Bypass of Treatment Facilities; and G10, Upset of Conditions, nothing in this permit shall be construed to relieve the Permittee of the civil or criminal penalties for noncompliance.

G18. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit.

G19. ADDITIONAL MONITORING

For good cause shown, the Council may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

The Permittee will notify the Council within 48 hours of the receipt of analytical results indicating downstream in-river monitoring concentrations of any parameter above water quality standards.



**G20. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

**G21. TRANSFERS**

This permit may be transferred to a new permittee if:

1. The current Permittee notifies the Council at least 30 days in advance of the proposed transfer date;
2. The notice includes a written agreement between the existing and new Permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
3. The Council does not notify the existing Permittee and the proposed new Permittees of its intent to modify or revoke the reissue the permit. If this notice is not received, the transfer is effective on the data specified in the agreement mentioned in paragraph (2) above.

**G22. LIABILITY**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject.

**G23. SIGNATORY REQUIREMENT**

All applications, reports, or information submitted to the Council shall be signed and certified as provided for under 40 CFR 122.22.

**G24. PENALTIES FOR TAMPERING**

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

**ATTACHMENT V**  
**WATER WITHDRAWAL AUTHORIZATION FOR THE SATSOP SITE**

**I. WATER WITHDRAWAL FROM THE RANNEY WELLS**

A. PRIORITY DATE: December 17, 1973, pursuant to EFSEC authorization

B. SOURCE: Chehalis River

C. MAXIMUM QUANTITY: eighty (80) cubic feet per second apportioned as follows:

1. Satsop Combustion Turbine Project

Instantaneous: 9.5 cubic feet per second

Annual: 6,865.65 acre feet

2. WNP-3

Instantaneous: 40 cubic feet per second

3. WNP-5

Instantaneous: 30.5 cubic feet per second

D. PURPOSE OF USE:

1. Satsop Combustion Turbine Project

8.6 cubic feet per second for power generation, including quench water to meet the temperature limits of the NPDES permit; and 0.9 cubic feet per second for quench water to cool the discharge below the temperature set in the NPDES permit

2. WNP-3

40 cubic feet per second for power generation, or if the plant is decommissioned, for site restoration

3. WNP-5

30.5 cubic feet per second for site restoration

E. PERIOD OF USE: Year-round

F. LOCATION OF WITHDRAWAL:

1400 feet east and 300 feet south of the northwest corner of Section 15, Township 17 N.  
Range 7 W., E.W.M. (also known as Ranney Well No. 1)

3100 feet east and 400 feet south of the northwest corner of Section 15, Township 17 N.  
Range 7 W., E.W.M. (also known as Ranney Well No. 3)

G. LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED:

1. Satsop Combustion Turbine Project  
Section 7, Township 17 N., Range 6 W., E.W.M. (and as further described in Attachment I of the Site Certification Agreement)
2. WNP-3 and WNP-5  
Sections 7, 8, 17, and 18, Township 17 N., Range 6 W., E.W.M. (and as further described in Attachment I of the Site Certification Agreement)

H. DESCRIPTION OF PROPOSED USE:

1. Satsop Combustion Turbine Project (two natural gas fired combined cycle power plants, designated CT Unit 1 and CT Unit 2)
2. WNP-3 (one nuclear power plant)
3. WNP-5 (restoration of a decommissioned partially completed nuclear power plant)

I. DEVELOPMENT SCHEDULE:

1. Satsop Combustion Turbine Project
  - a. Begin Project: within ten (10) year period from the effective date of Amendment No. 2 to the Site Certification Agreement (SCA).
  - b. Complete Project: within five (5) years of beginning construction of both units.
  - c. Water put to beneficial use: within two (2) years of completion of project construction for both units.
2. WNP-3
  - a. Resume Project Construction: within five (5) years from the effective date of Amendment No. 2 of the Site Certification Agreement.
  - b. Complete Project: within six (6) years of resuming construction.
  - c. Water put to beneficial use: within two (2) years of completion of project construction.
  - d. If Project Construction is not completed: within five (5) years from the effective date of Amendment No. 2 of the Site Certification Agreement, or at completion of decommissioning and restoration of WNP-3, whichever occurs first.
3. WNP-5

Within five (5) years from the effective date of Amendment No. 2 of the Site Certification Agreement, or at the completion of the decommissioning and restoration of WNP-5, whichever occurs first.

## II. WATER WITHDRAWAL FROM THE RAW WATER WELL

- A. PRIORITY DATE: December 17, 1973, pursuant to EFSEC authorization
- B. SOURCE: Ground water
- C. MAXIMUM QUANTITY: 300 gallons per minute
- D. PERIOD OF USE: Year-round
- E. LOCATION OF WITHDRAWAL:

Southeast Corner of the Southwest Corner of Section 6, Township 17N, Range 6W, E.W.M.

- F. LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED:

Sections 7, 8, 17, and 18 in T. 17 N. R. 6 W., E.W.M. (and as further described in Attachment I of the Site Certification Agreement).

- G. DESCRIPTION OF PROPOSED USE:

Construction, restoration, domestic, and fire protection services.

- H. DEVELOPMENT SCHEDULE: Water was put into use in 1977.

## III. PROVISIONS

- A. Instream Flow - The rate of diversion for the Satsop Combustion Turbine is limited to a maximum of 9.5 cubic feet per second. However, the diversion shall be decreased (or stopped) as necessary to ensure that the Satsop Combustion Turbine Project does not affect the minimum base flows immediately downstream of the point of diversion. The required minimum base flows are established in WAC 173-522-020 and set forth in subsection (B) below. All withdrawals for the Satsop Combustion Turbine Project are subject to the withdrawal restrictions set forth herein concerning periods of low flow.
- B. Standard Base Flow - This authorization is subject to the provisions of Chapter 173-522 Washington Administrative Code and the general rules of Ecology as specified under Chapter 173-500 Washington Administrative Code, and others. The base flows for the Satsop Combustion Turbine Project were established at monitoring station 12.0350.02, mile 20, Sec. 7, T.17N., R.6W., E.W.M., and are presented in the following table:

<u>MONTH</u>	<u>DAY</u>	<u>BASE FLOW (cfs)</u>	<u>MONTH</u>	<u>DAY</u>	<u>BASE FLOW (cfs)</u>
January	1	3800	July	1	1085
January	15	3800	July	15	860
February	1	3800	August	1	680
February	15	3800	August	15	550
March	1	3800	September	1	550
March	15	3800	September	15	550
April	1	3800	October	1	640
April	15	3800	October	15	750
May	1	2910	November	1	1305
May	15	2300	November	15	2220
June	1	1750	December	1	3800
June	15	1360	December	15	3800

Base flow hydrographs, found on page 81 of "Water Resources Management Program in the Chehalis River Basin," dated November 1975, shall be used for definition of base flows for the Satsop Combustion Turbine Project on those days not specifically identified in the above table. These base flows will also be established at Station 12.0350.02 (Chehalis River below confluence with Satsop River). No diversion of water under this authorization shall take place such that the flow of the river falls below the above flows.

- C. Pumps - For the Satsop Combustion Turbine Project, the Supply System shall install new pumps or modify the existing pumps in the Ranney wells to limit withdrawals to a maximum of 9.5 cfs needed for the Satsop Combustion Turbine Project, and to any lesser amount required by minimum flow restrictions set forth in Sections A and B above.
- D. Meter - An approved measuring device shall be installed and maintained in accordance with RCW 90.03.360, WAC 508-64-020 through -040. Installation, operation, and maintenance requirements may be obtained from the Department of Ecology's Southwest Regional Office, Water Resources Program. Meter readings shall be recorded at least once monthly.
- E. Water Resources Act - The Water Resources Act of 1971 specifies certain criteria regarding utilization and management of the waters of the Washington State in the best public interest. Favorable consideration of the application has been based on sufficient waters available. Ecology has not waived its right to request of the Energy Facility Site Evaluation Council that the use of water be subject to further regulation at certain times, based on the necessity to maintain water quantities for preservation of the natural environment.

- F. Water Resources - Under RCW 90.44.250 and 90.54.030, Ecology is directed to become informed about all aspects of the water resources of the State. Ecology is authorized to make such investigations as may be necessary to determine the location, extent, depth, volume, and flow of all ground waters within the State. Accordingly, the Supply System shall monitor and provide an annual summary of the previous year's monthly static water level data and monthly totals of water pumped from the Ranney wells. This summary shall be submitted in tabular format to the Council and to Ecology's Southwest Regional Office annually, during the month of February, or more frequently if requested by Ecology.
- G. Ground Water Use - Withdrawal of water from ground water by the Supply System in an area near the confluence of the Chehalis and Satsop rivers for any use other than domestic supply or fire suppression will be limited to 300 gallons per minute and will be limited by restrictions set forth in Section B during periods of low flows.
- H. Indian Rights - This authorization to make use of public water of the state is subject to existing rights, including existing rights held by the United States for the benefit of Tribes under treaty or settlement.
- I. Monitoring - A suitable gauge shall be installed at the location of Control Station No. 12.0350.02 (Chehalis River below the confluence with the Satsop River) to provide flow monitoring. The type, location and installation of the gauge shall be approved by the Council in consultation with the Department of Ecology's Southwest Regional Office, Water Resources Program.
- J. Hydrostatic Testing - Prior to performing hydrostatic testing in connection with construction of the proposed natural gas pipeline, the Supply System agrees to obtain approval from the Council, in consultation with the Department of Ecology and the Department of Fish and Wildlife.

## ATTACHMENT VI

### CONTRACT FOR WATER SUPPLY

THIS CONTRACT is made and entered into as of this 11th day of June, 1980, by and between the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, a municipal corporation of the State of Washington, PACIFIC POWER & LIGHT COMPANY, a Maine corporation, PORTLAND GENERAL ELECTRIC COMPANY, an Oregon corporation, PUGET SOUND POWER & LIGHT COMPANY, a Washington corporation, and the WASHINGTON WATER POWER COMPANY, a Washington corporation, hereinafter collectively referred to as "the Utilities," and the CITY OF ABERDEEN, a municipal corporation of the State of Washington, hereinafter referred to as "the City."

WHEREAS, the City has agreements with the United States of America and the Washington State Department of Ecology whereby the City has acquired rights to a maximum flow of 300 cubic feet per second (cfs) flowing in the Wynoochee River at the City's diversion dam located on the Wynoochee River at approximately mile eight; and

WHEREAS, the Utilities have a need to have the City's assurance that there will be a continuous flow of untreated water past river mile 8.1 of the Wynoochee River of 62 cfs in addition to the amount currently required (50 cfs) in order to satisfy the requirements of federal and state agencies with respect to the Washington Nuclear Projects Nos. 3 and 5 under construction by Washington Public Power Supply System on behalf of all of the Utilities;

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, it is agreed between the Utilities and the City as follows:

1. Purpose of Contract. It is the purpose of this Contract to provide for the intergovernmental arrangement required to provide on behalf of the Utilities a fixed and assured amount of flow in the Wynoochee River of untreated water in connection with Washington Nuclear Projects Nos. 3 and 5.

2. Definition of Terms. The following words and phrases used in this Contract shall have the following meanings:

(a) "City" shall mean the City of Aberdeen, a municipal corporation of the State of Washington.

(b) "Utilities" shall mean the Washington Public Power Supply System, Pacific Power & Light Company, Portland General Electric Company, Puget Sound Power & Light Company and Washington Water Power Company.

(c) "Wynoochee Reservoir Project" shall mean that water supply storage project constructed and installed pursuant to the Wynoochee Reservoir Project Contract.

(d) "Wynoochee Reservoir Project Contract" shall mean the contract made as of August 15, 1967, between the United States of America and the City, bearing Contract No. DACW67-68-C-0024, including Amendment No. 1 thereto dated April 17, 1974, and any subsequent amendments to that 1967 contract heretofore or hereafter made.



3. Obligation to Release Water. The City shall cause the continuous release of untreated water from the Wynoochee Reservoir Project which will result in the minimum flow of the Wynoochee River at Wynoochee River mile 8.1 of 62 cfs in addition to the current minimum flow requirements at the time of this Contract of 50 cfs, except that if the Utilities are required by a regulatory agency of the State of Washington or the United States of America, having jurisdiction over the Utilities for this purpose, to guarantee an additional minimum flow at Wynoochee River mile 8.1, then the City shall cause an additional release of water which will result in an additional flow of not to exceed 10 cfs at that mile point. Any release shall be in addition to previous minimum river flow requirements for the Wynoochee River specified either by state requirements or the Wynoochee Reservoir Project Contract.

The release of such additional water shall commence within seven days after the Utilities, through Washington Public Power Supply System, give the City written notice that the water must be released.

The Utilities shall notify the City at least seven days in advance of any significant reduction or increase in its water requirements.

If because of drought, earthquake, other acts of God, force majeure, or some other condition beyond the City's control, the City temporarily cannot supply water in accordance with the terms of this Contract, the City shall

notify the Utilities as soon as possible that such water will not be available. The City shall undertake all reasonable efforts to secure the resumption of such water flow.

Subject to the other terms of this Contract, the City guarantees and the Utilities are granted by the City rights to the water flow quantities specified in this Contract flowing in the Wynoochee River to which the City has rights up to a maximum amount of 62 cfs.

4. Payment for Water Release.

(a) Washington Public Power Supply System. On or before June 11, 1980, the System shall pay to the City the sum of \$8,760,000.

(b) Pacific Power & Light Company. On or before June 11, 1980, Pacific Power & Light Company shall pay to the City the sum of \$120,000. Beginning on the date one year following the day of loading of the initial fuel in WNP-3 or WNP-5, whichever is fueled first, Pacific Power & Light Company shall make the first of a series of equal annual payments due on that date for a period of fifteen years. The amount of the annual payment (A) shall be calculated as:

$$A = \$975,000(1.09)^n(.1240588827)$$

where n = number of years from the date of this agreement to day of initial fuel loading.

(c) Portland General Electric Company. On or before June 11, 1980, Portland General Electric Company shall pay to the City the sum of \$60,000. Beginning on the date one year following the day of loading of the initial

fuel in WNP-3 or WNP-5, whichever is fueled first, Portland General Electric Company shall make the first of a series of equal annual payments due on that date for a period of fifteen years. The amount of the annual payment (A) shall be calculated as:

$$A = \$487,500(1.09)^n(.1240588827)$$

where n = number of years from the date of this agreement to day of initial fuel loading.

(d) Puget Sound Power & Light Company. On or before June 11, 1980, Puget Sound Power & Light Company shall pay to the City the sum of \$30,000. Beginning on the date one year following the day of loading of the initial fuel in WNP-3 or WNP-5, whichever is fueled first, Puget Sound Power & Light Company shall make the first of a series of equal annual payments due on that date for a period of fifteen years. The amount of the annual payment (A) shall be calculated as:

$$A = \$243,750(1.09)^n(.1240588827)$$

where n = number of years from the date of this agreement to day of initial fuel loading.

(e) Washington Water Power Company. On or before June 11, 1980, Washington Water Power Company shall pay to the City the sum of \$30,000. Beginning on the date one year following the day of loading of the initial fuel in WNP-3 or WNP-5, whichever is fueled first, Washington Water Power Company shall make the first of a series of equal annual payments due on that date for a period of fifteen years. The amount of the annual payment (A) shall be calculated as:

$$A = \$243,750(1.09)^n(.1240588827)$$

where n = number of years from the date of this agreement to day of initial fuel loading.

(f) Such payments shall constitute full and complete payment for the guaranteed release of water provided for in this contract (and the relinquishment of the City's rights to divert that water for use or consumption) for the duration of this contract, including the Utilities' share in the City's past, present and future capital payments on the Wynoochee Reservoir Project and maintenance and operation expenses in the Wynoochee Reservoir Project to December 31, 2020.

5. Hold Harmless. The Utilities agree to defend and hold harmless the City from any and all claims relating to the release of the water in accordance with this Contract.

6. Term of Contract. This Contract shall continue in effect from the date hereof until December 31, 2020.

If the Utilities give the City written notice by January 1, 2020 that they desire an extension of this Contract, the City agrees to extend this contract for up to an additional 10 years with an additional payment or payments to the City by the Utilities to be mutually agreed upon at that time.

7. Amendments. Any changes, modifications or revisions of this Contract shall be by written agreement of the parties hereto.

8. Notices. Unless otherwise notified in writing of an address change by the other party, any notice given by one party shall be mailed or delivered as follows:

To the City:

City of Aberdeen  
Water Department  
200 E. Market Street  
Aberdeen, WA 98520

To the Utilities:

Washington Public Power  
Supply System  
3000 George Washington Way  
Richland, WA 99352

EXECUTED as of the date set forth above.

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM

By

M. A. Stand  
Managing Director

PACIFIC POWER & LIGHT COMPANY

By

R. L. McInnis  
Title Vice President

PORTLAND GENERAL ELECTRIC COMPANY

By

Alvin E. Braden  
Title VICE PRESIDENT

PUGET SOUND POWER & LIGHT COMPANY

By

J. E. Johnson  
Title Vice President

WASHINGTON WATER POWER COMPANY

By

H. W. Harding  
Title Vice President

CITY OF ABERDEEN

By

G. B. Fay  
Mayor

## **ATTACHMENT VII MITIGATION MEASURES AND PROJECT CONDITIONS**

This attachment to the Site Certification Amendment (SCA) incorporates agreements made with the Washington Department of Ecology (Ecology) and Department of Fish and Wildlife (WDFW), and mitigation measures included in the SCA Application.

### **PART I. GENERAL CONDITIONS**

#### **A. Mitigation Principles**

The principles of impact assessment which have been applied to the currently expected impacts and which shall be applied to all unforeseen impacts are, in descending order of importance, 1) avoid the impact wherever possible; 2) minimize the impact; 3) provide on-site, in-kind mitigation; and lastly, 4) provide off-site compensatory mitigation.

The Supply System shall, prior to construction of the natural gas pipeline, create a detailed pipeline construction plan which shall contain, at a minimum, the following mitigation measures including construction methodology, surface water runoff control, study schedules, and erosion and sedimentation control. To the extent that one or more of the following standards or requirements cannot be met, the Supply System will confer with EFSEC and its designated representatives on the appropriate standard or requirement to be used.

#### **B. Required Plans**

The Supply System agrees to develop the following in consultation with EFSEC and its designated representatives:

##### **1. Natural Gas Pipeline Map**

A detailed map showing right-of-way acquisition and land uses impacted within the right-of-way. If the final alignment of the pipeline deviates from the proposed corridor, additional field investigations of cultural resources, vegetation (including wetlands), wildlife, and aquatic resources will be conducted as necessary to document the affected environment and potential impacts and mitigation measures.

##### **2. Environmental Protection Control Plan**

The Satsop Site's existing Environmental Protection Control Plan will be modified to specifically include the Satsop CT Project. The existing Environmental Monitoring Program will be modified to include specifications for commitments made concerning the Project and the associated natural gas pipeline.

The revised Environmental Protection Control Plan will be implemented to provide adequate maintenance and inspection of the erosion and sediment control system. The plan will specify that control structures will be inspected at a frequency sufficient to provide adequate environmental protection. Such inspections will increase in frequency during rainfall periods.

### 3. Erosion and Sedimentation Control Plan

An Erosion and Sedimentation Control Plan for the natural gas pipeline will be prepared to address crossings of sensitive areas, and submitted to EFSEC for review and approval prior to construction. The plan will include emergency implementation and response, damage control, and restoration activities for stream and wetland crossings, and for riparian and habitat areas, and will include detailed drawings which will identify areas where accretion may occur, and specific mitigation measures to be used to prevent or limit accretion will be identified.

The plan will include detailed information in the following areas:

- a. Description - A description of the nature and extent of proposed land disturbing activities (e.g., clearing, trenching, and grading).
- b. Existing Site Conditions - A description of the existing topography, bed rock lithology and structure, vegetation and drainage.
- c. Adjacent Areas - A description of neighboring streams, lakes, and drainage areas which might be affected by the land disturbance.
- d. Soils - A detailed account of the soils within the pipeline construction corridor, including soil names, erodibility, permeability, depth, texture, and soil structure.
- e. Critical Areas - A description of areas within the pipeline construction corridor which have potentially serious erosion problems, for example, areas of past or present soil movement.
- f. Erosion and Sedimentation Control Measures - A description of the control methods to be used including vegetative and structural controls and management measures (e.g., staging construction so no areas remain exposed for unnecessarily long period of time). Methods will be specific and include schedules and duration the control measure is expected to be used. An explanation will be included as to why selected methods are appropriate to the situation.
- g. Permanent stabilization - A detailed description, including specifications of how the corridor will be stabilized after completion of construction.

- h. Maintenance - An inspection schedule for all erosion control measures will be established. A maintenance schedule for erosion and sediment control structures will be set forth.
  - i. Calculations - Any calculations made for the design of erosion control structures, such as sediment basins, will be included.
  - j. Contingency Plans - Contingency plans for emergency situations and project abandonment will be outlined.
  - k. Pipeline Construction Corridor Plan - High resolution maps of the construction corridor will be provided which will include: a vicinity map, existing contours, vegetation and soils, critical erosion areas, existing drainage patterns, limits of clearing and grading, location of control measures, and detailed drawings of control structures.
4. Blasting Plan
5. Restoration of Natural Gas Pipeline Right of Way Plan
- This plan will include restoration and maintenance practices, schedules, monitoring methods, contingencies, and noxious weed control measures.
6. Construction Water Use and Control Plan for the Natural Gas Pipeline
7. Storm Water Control Plan
- Storm water control for the natural gas pipeline and the site will be subject to the existing National Pollution Discharge Elimination System (NPDES) Permit. A storm water discharge plan for the pipeline will be submitted, or water quality waivers with proposed limitations will be requested of EFSEC if appropriate.
8. Spill Prevention and Countermeasure Plan
- A spill prevention containment, control and countermeasure plan, including petroleum and toxic material handling, storage, and spill response, has been prepared in accordance with EFSEC requirements. The plan will be updated prior to construction of the Satsop Combustion Turbine Project to include requirements in Amendment II of the SCA.
9. An Emergency Response Plan
10. Army Corps of Engineers Approval
- Army Corps of Engineers (ACOE) approval will be required for locating the gas pipeline where it would cross wetlands. A permit application has been made to the ACOE. Meetings and field visits have been made with federal and state agency staff to review the



proposed crossing locations and methodologies. Discussions and work are continuing on refining and/or revising crossing methodologies, and development of mitigation and construction monitoring measures that would be acceptable to the ACOE and other federal agencies. Final ACOE permits will not be issued until after Section 401 Certification is issued by the state. Section 401 Certification would be issued concurrent with the Site Certification Agreement.

#### 11. Wildlife Studies and Mitigation Plan

- a. Upon completion of the final route details for the gas pipeline and prior to construction, clarification will be sought from EFSEC concerning the need for additional wildlife studies.
- b. Prior to construction, a new survey for the presence of Bald Eagle nesting or feeding habitat areas will be made for the impact area of the gas pipeline. If nests or feeding habitat are found, a mitigation plan will be developed with consultation from state and federal agencies.
- c. The U.S. Fish and Wildlife Service will be contacted prior to construction of the project to update the list of endangered, threatened, and candidate species. If there are any new species listed, coordinate any possible mitigation measures with the appropriate agency.
- d. WDFW will be contacted periodically for updated information from the Natural Heritage Data Systems.

#### 12. Geotechnical Studies

Detailed geotechnical studies will be performed to identify the final pipeline alignment and to provide input to the final design criteria.

#### 13. Traffic and Transportation Plan

A Traffic and Transportation Plan, including proposed design or mitigation measures, will be prepared for the construction phase and submitted to EFSEC for review.

#### 14. Historic Boundary Determination

A Historic Boundary Determination of HSN-2 will be made and a determination of eligibility requested if the gas pipeline route will cross through the site.

## PART II. CONSTRUCTION METHODOLOGY

### A. Erosion Control

1. Construction activities will be controlled to help limit erosion. Clearing, excavation and grading will be limited to those areas of the project absolutely necessary for construction of the project. Areas outside the construction limits will be marked in the field and equipment will not be allowed to enter areas or to disturb existing vegetation.
2. The Supply System's construction contractors will implement an Erosion and Sedimentation Control Plan during construction to minimize soil loss due to surface water flows. Construction activities for access roads and extra working areas will be controlled to the extent possible to help limit erosion. Clearing, excavation, and grading will be limited to extra working areas and the construction of access roads. Best Management Practices (BMPs) will be designed and implemented for each extra working site construction. BMPs include limiting certain construction activities and installing control structures as described below.
  - a. Sediment Traps/Retention Ponds: Sediment traps/retention ponds will be constructed to intercept runoff from disturbed areas and will be located away from natural stream channels. A sufficient number of traps/ponds will be constructed to intercept runoff from the disturbed area, with sufficient capacity provided for the required storm event and accumulated sediment. The traps/ponds will not be constructed on fill material.
  - b. Silt Fences: Silt fences will be installed in locations where they will trap silt eroded from slopes during construction and prior to reestablishing vegetation. Silt fence construction specifications, including fabric equivalent opening size, spacing and length will be determined by local conditions.
  - c. Check Structures and Slope Ditches: Check structures such as dikes and swales will be used to reduce runoff velocity as well as divert surface runoff around and away from cut-and-fill slopes. A swale or slotted pipe will be provided on the upstream side to divert runoff from the dike and such runoff will be discharged to a sediment trap.
  - d. Temporary Water Conveyance Structures: Temporary pipe installed on the surface may be used for temporary drainageways. Where piping is not possible, temporary earth channels will be constructed. All temporary drainage ways in disturbed areas will be protected to prevent erosion as specified in current standards.
  - e. Permanent Waterways: Some waterways that are to be part of the permanent stormwater drainage system will be constructed early during construction to carry construction runoff. Where applicable at the proposed plant site, existing stormwater control ways may be utilized.

- f. Vehicle Entrance Stabilization: Stabilized construction vehicle entrances will be established with tire wash provisions to reduce the amount of soil transported onto nearby roads and highways.
- 3. Surface runoff will be diverted around and away from cut and fill slopes and conveyed in pipes or protected channels. If the runoff is from disturbed areas, it will be directed to a sediment trap/retention pond prior to discharge.
- 4. Vegetation will be re-established on all disturbed slopes in accordance with Attachment II of the SCA.
- 5. Geotextiles will be used to minimize water migration in areas with potentially unstable slopes. French drains or other dewatering methods will be used for slopes that have the potential to become unstable due to their water content, and for areas with perched water in soils susceptible to liquefaction.
- 6. In areas with relatively shallow problem soils, trenches will be excavated to a depth where suitable bedding materials are present.
- 7. The toe of unstable slopes will be stabilized through the use of gabions or retaining walls in areas of Class III or Class IV slope instability.
- 8. In areas where low permeability topsoils occur at or near the surface, compaction of trench backfill will be completed using native soils compacted to match, as closely as possible, the density and permeability of the surrounding undisturbed soils.
- 9. Fuller Creek

Particular care will be taken to prevent erosion from reaching Fuller Creek during plant construction. Construction runoff will be routed to existing pond C-1 or F-2 ponds.

B. Wetland and Aquatic Standards

- 1. Timing
  - a. All "out of the water" soil or stream bed disturbing activities associated with wetland, stream, or river crossings shall occur during the dry portion of the year, typically late spring through early fall.
  - b. Construction related activity within the active stream or river channel and/or within fifty feet of the bank shall be limited to the period of July 1 through September 30.
- 2. General Construction Procedures

- a. Notify EFSEC and its designated representatives at least 48 hours prior to commencement of pipe installation activities or blasting within each water body.
- b. In wetlands and riparian areas, limit the construction rights-of-way to fifty feet or less.
- c. In wetlands and riparian areas, vegetation that must be removed shall be cut at ground level, leaving existing root systems intact. Limit pulling of tree stumps and grading activities to those that would directly interfere with trenching, pipe installation and backfill.
- d. If standing water or saturated soils are present, use low ground weight construction equipment and/or operate on prefabricated equipment mats. Matting will be used in all cases where there is water within the upper 18 inches of soil.
- e. In the event that matting is necessary, all construction activities will be carried out from the matting. Equipment will not be allowed in the wetland, off the mats, at any time. The mats will be inspected prior to placing in the wetland and mats with foreign material will not be used.
- f. Use trench plugs as necessary to prevent diversion of water into upland portions of the pipeline trench.
- g. Appropriate culvert sizing, placement and installation will be determined by site specific hydrology to ensure proper drainage regimes and that fish passage is maintained.
- h. Construct crossings as perpendicular to axis of stream channel as engineering and routing conditions permit.
- i. Maintain downstream flow rates at all times.
- j. Complete instream construction in minor streams within 24 hours of initiation.
- k. Install and maintain sediment filter devices at all streambanks.
- l. Perform daily inspection and repair as needed.
- m. Return streambank to original contour where possible.
- n. Revegetate immediately after construction using vegetation that is fast to establish and plant native plants such as willows and cottonwood for long-term stabilization.
- o. Use log deflectors that create sediment deposition and plant establishment to stabilize banks where possible.

- p. Minimize the use of riprap to areas where flow conditions preempt vegetative stabilization.
- q. Locate all staging areas, additional spoil storage areas, and other additional work areas at least fifty feet away from the ordinary high water mark or wetland boundary. In no event shall vegetation be cleared between these areas and the water body or wetland. Limit size to minimum needed to construct the wetland or water body crossing..
- r. Limit the size of areas disturbed when constructing a stream crossing.
- s. Avoid storing hazardous materials, chemicals, fuels, and lubricating oils, or perform concrete coating activities within floodplain (at least 100 feet from bank).

### 3. Access, Staging, and Ancillary Areas

- a. All equipment crossing a water body must use a construction bridge. Culvert crossings are not allowed.
- b. All equipment bridges shall be designed to pass the maximum flow and be maintained to prevent flow restrictions during the period that the equipment bridge is in place.
- c. The only access roads, other than the construction right of way, which may be used in wetlands are those existing roads that can be used with no modification and no impact on the wetland.
- d. Locate all staging areas, additional spoil storage areas, and other additional work areas at least fifty feet away from the ordinary high water mark or wetland boundary. In no event shall vegetation be cleared between these areas and the water body or wetland. Limit size to minimum needed to construct the wetland or water body crossing.
- e. Refuel all construction equipment at least 100 feet from water bodies or wetland boundaries.
- f. All equipment will be cleaned and inspected prior to entering the wetland. Leaking equipment will not be allowed to enter the wetland.
- g. Grading will not take place within the boundaries of any wetland, and disturbance will be kept to the minimum necessary to safely construct the pipeline.
- h. All activities within the wetland will be kept to the minimum disturbance area possible. Pipe sufficient to cross the wetland will be welded on the right-of-way and X-rayed before being carried or pulled into the wetland and lowered into the trench. In long wetland stretches, it may be more feasible to weld-up several joints of pipe, carry them into the trench leaving one end at the welding location, weld on additional lengths, pull

them into the trench, and repeat this process until the entire wetland length has been crossed.

- i. The upper 6 to 12 inches of topsoil will be removed and protected throughout construction.
- j. The materials removed from the trench below the topsoil level are not to be placed on top of, or mixed with, the topsoil material previously removed.
- k. Once the pipe has been laid in the trench, the subsoil will be replaced, followed by the topsoil. Excess material will be transported out of the wetland and spread on the right-of-way outside the wetland boundaries.

#### 4. Spoil Pile Placement and Control

All spoil material from water body crossings must be placed in the right of way at least ten feet away from the ordinary high water line, or in additional spoil storage areas located as required in paragraph II.B.3.d of this Agreement. At a minimum, all spoil shall be contained within sediment filter devices.

#### 5. Specific Stream and River Crossing Methods<sup>1</sup>

<u>STREAM NAME</u>	<u>STREAM NO.</u>	<u>METHOD</u>
Fuller Creek	22.0488	Span
Unnamed	22.0489	Bore and Jack or Directionally Drill
Workman Creek	22.0490	Bore and Jack or Directionally Drill
Unnamed	N/A	Standard dry method with berms
Unnamed	22.0520	Standard dry method with berms
Chehalis River	22.0190	Bore and Jack or Directionally Drill
Unnamed	N/A	Standard dry method with berms
Sand Creek	22.0534	Standard dry method with berms
Mox Chehalis Creek	22.0533	Bore and Jack or Directionally Drill
Unnamed Trib.	22.539,	Standard dry method with berms
Unnamed Trib.	14.0018	Standard dry method with berms
Unnamed Trib.	N/A	Standard dry method with berms
Kennedy Creek	14.0012	Standard dry method with berms
Unnamed	N/A	Standard dry method with berms
Unnamed	N/A	Standard dry method with berms
Swift Creek	13.0139	Standard dry method with berms
Cedar Flats Creek	13.0141	Bore and Jack or Directionally Drill
McLane Creek	13.0138	Standard dry method with berms

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<sup>1</sup> Subject to engineering feasibility and Army Corps of Engineer requirements.

Unnamed Trib.	13.0132	Standard dry method with berms
Black Lake Drainage	13.0030	Bore and Jack or Directionally Drill
Unnamed	N/A	Standard dry method with berms
Unnamed	23.0694	Standard dry method with berms
Deschutes River	13.0028	Attach to county road bridge
Unnamed	N/A	Standard dry method with berms

#### 6. Hydrostatic Testing

- a. Perform 100 percent radiographic inspection of all section welds prior to installation under water bodies or wetlands.
- b. Screen the intake hose (1/8" mesh) to prevent entrainment of fish. The maximum approach velocity shall not exceed 0.4 feet/second.
- c. At least thirty days prior to use, provide to EFSEC a list of specific locations proposed for withdrawal and discharge of hydrostatic test water and allow EFSEC to review and comment on the list in consultation with WDFW and Ecology.
- d. Notify EFSEC and its designated representatives of intent to begin using specific sources at least 48 hours prior to testing.
- e. Maintain adequate flow rates at all times to protect aquatic life and provide for all other water body uses, including downstream withdrawals.
- f. Hydrostatic test manifolds shall be located outside wetlands and riparian areas.
- g. Regulate discharge rate and use energy dissipation device(s) in order to prevent erosion of upland areas, stream bottom scour, suspension of sediments, or excessive stream flow.
- h. When hydrostatic testing is complete, the test water will be analyzed and treated if necessary to make it suitable for discharge in compliance with the water withdrawal and discharge permits issued for the project. The water will be discharged into ponds or holding areas and discharged through filtering media before it enters any water course. Erosion protection measures will be incorporated into the water discharge procedures. Final discharge plans will be developed in consultation with EFSEC.
- i. Pipe that is prepared for stream crossings will be air tested before placement. Pipe installed in rivers will be hydrostatically tested prior to installation. If leaks are detected, they will be repaired or the pipeline section replaced and the section retested.

#### 7. Restoration, Stabilization, and Revegetation

- a. Immediately after pipeline crossing, placement to a minimum depth of one (1) foot of clean, round spawning gravel must be done in all disturbed streambed areas.
- b. Placement and securing of acceptable instream fish cover features at a maximum interval of ten (10) feet along disturbed banks must be done on both sides of the stream. Instream cover features shall be woody debris including root wads or well-branched triple tree top bundles with the following specifications:

Stream Toe Width      Root Wad Dia. and Attached Trunk Length

Up to 10 feet	2 feet	5 feet
10 to 40 feet	3 feet	10 feet
More than 40 feet	4 feet	15 feet

Stream Toe Width      Tree Top Dia. and Length

Up to 10 feet	4 inches	5 feet
10 to 40 feet	6 inches	10 feet
More than 40 feet	8 inches	15 feet

- c. The instream cover features shall project into the low-flow water margin a minimum of the diameter of the required root wad.
- d. Suggested native species that may be used for revegetation in emergent wetlands include:

slough sedge (*Carex obnupta*)  
 American bulrush (*Scirpus americanus*)  
 small-fruited bulrush (*Scirpus microcarpus*)  
 Watson's willow herb (*Epilobium watsonii*)  
 spike rush (*Eleocharis palustris*)  
 cattail (*Typha latifolia*)  
 speedwell (*Veronica*, spp.)  
 mint (*Mentha arvensis*)  
 cut-leaved water horehound (*Lycopus americanus*, L.  
 unifora)  
 angelica (*Angelica*, spp.)  
 water parsley (*Oenanthe garmentosa*)  
 cow parsnip (*Heracleum lanatum*)



### C. Upland Standards

1. Retain selected oak in protected "islands" within right of way.
2. Plant standard size apple and crabapple or other appropriate fruit producing trees along right of way in selected locations, more than fifteen feet from centerline of pipe.
3. Retain snags and allow for snag recruitment. Retain and replace down woody material.
4. During construction of the pipeline, if trees need to be removed at some right-of-way locations, the treeline edge will be cut in an irregular pattern to reduce a linear swath appearance.
5. When pipeline construction is complete, the corridor will be replanted with (a) native, non-invasive plant species to prevent invasive plant species from becoming established and altering the plant community, or (b) returned to a condition agreed to by the landowner (for example, returned to a condition suitable for planting crops).
6. In areas where vegetation may need to be temporarily cleared for construction-related activities, removal of woody vegetation will be minimized by using the narrowest corridor possible and locating staging areas elsewhere. Construction in areas consisting of woody vegetation will be avoided whenever feasible, because areas temporarily cleared of herbaceous vegetation are more quickly restored over time.
7. Replanting will be done as soon as possible to prevent invasive species from becoming established and all species planted will be native to the region.
8. Reforestation of areas not maintained as right-of-way. Seedlings will be replanted to begin regeneration of forest habitat. A minimum of 300 seedlings per acre will be planted. Species included in the mix are Douglas fir, western hemlock, western redcedar, Sitka spruce, western white pine, red alder, and bigleaf maple. Species mixes will be appropriate to the area. Factors affecting the species mix include geographic location, soil characteristics (including soil moisture regimes), and adjacent forested plant species composition.
9. Revegetation of shrubby areas not maintained as right-of-way. Shrubs will be replanted in areas currently composed of shrubby vegetation. The following species are included in the mix: red elderberry, hazel, Indian plum, oceanspray, and cascara. The species mix will increase the habitat value of the mitigation area, and will be appropriate to the area. Geographic location, soil characteristics, and adjacent shrubby vegetation composition are factors affecting the species mix. Root stock that is approximately 3 feet in height is preferred. If suitable size shrubs cannot be found, younger stock may be introduced in a nursery enclosure (to prevent deer browsing of young plants) until the shrubs are about 3 feet high.

10. Revegetation of grasslands in shaded areas. Seed will be broadcast in areas that will be shaded for most of the day. The species included in this seed mix are (the numbers in parentheses indicate the pounds per acre of that species): fine fescue (17.0), big trefoil (2.0), annual ryegrass (1.0), and white Dutch or subterranean clover (2.0) for a total of 22.0 pounds of seed mix per acre. This seed mix would also be broadcast in areas of shrub and tree plantings to minimize the potential for erosion between completion of pipeline construction and replanting (shrubs and seedlings will be planted at times to optimize their chances of survival which may not correspond with the construction schedule).

11. Revegetation of grasslands in open areas. The following seed mix will be broadcast to re-establish grassland habitat in open areas (the numbers in parentheses represent the number of pounds per acre of that species): perennial ryegrass (2.0), annual ryegrass (2.0), orchard grass (dwarf if available) (4.0), tall fescue (1.0), yellow sweet clover (4.0), red (white Dutch or subterranean) clover (2.0), and birdsfoot trefoil (5.0) for a total of 20.0 pounds of seed mix per acre.

D. White Top Aster

1. The narrowest construction corridor possible will be used in areas with White-Top Aster.
2. A turf cutter will be used over the trench corridor to remove the prairie turf with the white-top aster. The turf cutter should cut about 6 inches deep. The turf will be rolled up and stored until construction in the prairie habitat is complete. When the subsoils and topsoils have been backfilled, the turf will be replaced. Rolled-up turf must be watered to prevent soil desiccation. The turf must be watered when replaced and watering may be necessary if precipitation levels are unseasonably low.
3. If feasible, construction will occur between mid-October and early April when the plant is dormant.
4. Topsoils excavated from the trench (6" to 18") will be stockpiled separately from the subsoils and will be backfilled over the subsoils when installation is complete.
5. The construction corridor will be revegetated, as necessary, with other plant species native to Tenalquot Prairie such as Idaho fescue (*Festuca idahoensis*). The plants used to revegetate the construction corridor will be native to the prairie so that the vegetation growing over the construction corridor resembles the naturally-occurring plant composition of the prairie.
6. Idaho fescue plugs will be collected, divided, and replanted, as necessary, to ensure survival of native prairie species and minimize the opportunity for invasive species to become established.

7. Invasive plant species (that are not native to the prairie) are adjacent to the pipeline corridor. Therefore, revegetation of the construction corridor will be conducted as soon as construction is complete to prevent invasive plants from becoming established.

E. Fugitive Dust

Fugitive dust will be controlled by spraying water on dry earth in the active construction areas.

**PART III. CONSTRUCTION MITIGATION**

A. General Wildlife Habitat

1. The Supply System construction contractor for the pipeline will be required to replant disturbed habitats with native vegetation to reduce the duration of habitat disturbance. In areas requiring maintenance, they will plant native grassland species which need less frequent maintenance than native pioneer shrubs, thus reducing the frequency of human activity in this habitat.
2. The pipeline route was relocated in the vicinity of the Chehalis River to increase the distance of the pipeline from a bald eagle nest. The nest was approximately 1,000 feet from the original alignment, but is now approximately 2,000 feet from the proposed route. Because the nest is more than 0.25 mile from the nest, there will be no timing restrictions on construction, unless new nesting sites are determined (See I.C.13.a).
3. Transmission lines will be designed to be safe for raptors using techniques recommended by Olendorff et al. (1981), thus eliminating the potential hazard of electrocution for bald eagles as well as other raptors.
4. Native vegetation will be retained as much as possible in the impact area to preserve wildlife habitat and provide a buffer of vegetation from surrounding habitat areas. Shrub habitat will be maintained at low to medium vegetation heights in the rights-of-way.
5. Restore and revegetate the 25-foot wide construction easement with native plant species favorable to wildlife immediately following construction consistent with a site-specific vegetation plan and landowners agreements, as appropriate.
6. Relocate nest boxes for western bluebirds and wood ducks that will be disturbed by construction of the pipeline.

A. Wetland Habitat

1. Wetland restoration, creation and enhancement will not result in a net loss of wetland acreage and functions.
2. In-kind replacement of functions and values is preferred.

3. Where in-kind replacement is not feasible, substitute resources of equal or greater ecological value will be provided.
4. Biologists are continuing to work with the Army Corps of Engineers and other federal and state agencies to avoid wetlands, especially high quality wetlands and forested wetlands. Some route revisions may result based on wetland determinations.
5. Wetland mitigation for the project is focused on avoidance and restoration. Avoidance of impacts to wetlands and wetland functional values will occur by physically avoiding contact with the wetlands. Although it is not possible to avoid all of the wetlands in the construction corridor, wetlands have been avoided whenever feasible. An emphasis on avoidance has been made for considered for high quality wetlands and wetland types which are difficult to replicate (e.g., forested wetlands).
6. Where avoidance of wetlands is not possible, the following mitigation measures will be implemented:
  - a. Construction techniques for minimizing compaction and mixing of wetland soils.
  - b. Temporary erosion and sedimentation controls including use of hay bales and siltation/sedimentation fences.
  - c. Conducting construction activities during the dry season to the extent possible.
  - d. Avoiding scrub-shrub and forested portions of wetlands to the greatest extent possible.
  - e. Retaining and backfilling wetland topsoils.
  - f. Regrading wetland basins to the original elevation and contour.
  - g. Re-vegetation of wetland types using native, non-invasive species.
  - h. Reestablishing hydrologic regimes (water inflow and outflow).
7. Compensation

A combination of wetland enhancement and creation to compensate for proposed wetland impacts will be implemented where avoidance of wetlands is not possible. Compensation for unavoidable losses will include:

  - a. For wetlands filled and lost, wetland acreage shall be replaced by creation at a 3 to 1 replacement ratio by wetland type (ratio to be doubled for enhancement of existing wetlands).
  - b. For wetlands that are disturbed but not lost, the following shall apply:

1. Forested Wetlands. Disturbance impacts to forested wetlands shall be mitigated by both: restoration of the disturbed area to either forested wetland or scrub/shrub wetland; and either replacement with other forested wetland (restoration or creation) in an amount equal to the disturbed area, or enhancement of disturbed emergent herbaceous wetland to forested wetland in amount equal to twice the disturbed area.
2. Scrub/Shrub Wetlands. Disturbance impacts to scrub/shrub wetlands shall be mitigated by both: restoration of the disturbed area to scrub/shrub wetland; and either replacement with other scrub/shrub wetland (restoration or creation) in an amount equal to one-half the disturbed area, or enhancement of disturbed emergent wetland to scrub/shrub wetland in an amount equal to the disturbed area.
3. Emergent Wetlands. Disturbance impacts to emergent herbaceous wetlands shall be mitigated by restoration of the disturbed areas to native emergent herbaceous wetland.

B. Upland Habitat

1. Forest Habitat

- a. For forest areas that are cleared and that cannot be restored to forest habitat, mitigation shall be by replacement of forest habitat (restoration or creation) in an amount equal to twice the unrestored forest area.
- b. For forest areas that are restored in place to forest habitat, mitigation shall be by restoration or creation of additional forest habitat in an amount equal to one-half the restored forest area.
- c. In either (1) or (2) above, planting of trees in formerly disturbed herbaceous sites (such as abandoned agricultural fields) shall qualify.

2. Shrub Habitat

- a. For shrub areas that are cleared and that cannot be restored to shrub habitat, mitigation shall be by replacement of shrub habitat (restoration or creation) in an amount equal to twice the unrestored shrub area.
- b. For shrub areas that are restored in place to shrub habitat, mitigation shall be by restoration or creation of additional shrub habitat in an amount equal to one-half the restored shrub area.
- c. In either (1) or (2) above, planting of shrubs in formerly disturbed herbaceous sites (such as abandoned agricultural fields) shall qualify.

3. Prairie and Native Oak Forest

The Supply System shall fund, design and implement an off-site prairie restoration project in Thurston County to restore lost prairie habitat values. The specific location of the prairie enhancement efforts shall occur on existing public lands identified by the Prairie Landscape Working Group. The project shall consist of the following two actions:

- a. A controlled burn or mechanical removal (mowing) to accomplish the initial removal of scotch broom on an area of existing prairie equal to two times the area of prairie habitat affected by pipeline construction activities; and
- b. One-time removal of invading conifer growth on 25 acres of established native oak forest.

4. Herbaceous Habitat

Disturbance impacts to herbaceous habitat shall be mitigated by restoration of the disturbed areas in place with safeguards against weedy invasive species.

C. Pipeline Right-of-Way

1. Wherever feasible, construction activities will occur outside of the planting/growing/harvesting period to minimize cropland productivity impacts.
2. Negotiations with land owners for easement compensation will be conducted prior to construction. If the land owners refuse to grant the easements and if all reasonable efforts to satisfy their concerns have been exhausted, then the Supply System will consider other options including minor re-route of the pipeline.
3. Compensation to farmers for crop removal and/or damage or lost productivity caused by the construction activities will be negotiated based on actual impact.
4. Compensation to farmers for land permanently removed from productive use by construction of the project will be negotiated based on the productive use of that land.
5. Equipment cleaning and washing procedures will be implemented to prevent the spread of noxious weeds.
6. The Supply System will coordinate construction activities with farmers to ensure (a) livestock access to feeding and watering stations, and (b) continued access across the right-of-way for farm equipment.
7. Compacted soil will be loosened by tilling after the pipeline is installed and backfilled.

8. The pipeline corridor will be replanted with native vegetation after completion of construction.
9. Fences and gates removed during construction will be replaced.

D. Noise

The following construction sound abatement measures will be included in the project construction specifications to mitigate construction sound impacts:

1. Construction will not be performed within 1,000 feet of an occupied dwelling unit on Sundays, legal holidays, or between the hours of 10:00 P.M. and 6:00 A.M. on other days.
2. All construction equipment will have sound control devices no less effective than those provided on the original equipment. Equipment will not be operated with unmuffled exhaust systems.
3. Pile driving or blasting operations, if required, will not be performed within 3,000 feet of an occupied dwelling unit on Sundays, legal holidays, or between the hours of 8:00 P.M. and 8:00 A.M. on other days.
4. Notice of the proposed construction schedule and locations will be well publicized in the area, and nearby residents will be notified in advance of the anticipated schedule for construction activities.

E. Historic and Cultural Preservation

The Supply System and their construction contractor will coordinate with EFSEC and local Tribes to develop an acceptable construction monitoring plan and will implement the plan during construction of the proposed project.

F. Traffic and Transportation

The natural gas pipeline will be installed under major roadways and under railroads using boring and drilling techniques to avoid roadway and rail disruptions. After pipeline installation across roadways, the subgrade and surface of the roadways will be returned to their pre-existing conditions in accordance with state and local requirements.

G. Commuter Trip Reduction Act

The Commuter Trip Reduction Act is implemented in the eight largest counties in Washington State. Grays Harbor County is exempt, but Thurston County is subject to the Act. The Commuter Trip Reduction Act requires carpooling or other transportation management measures in work situations where 100 or more workers will be arriving at the same site between 6:00 and 9:00 a.m. for 12 months or longer. In Thurston County, only pipeline construction will occur as

part of the project, and it is not known at this time exactly how long workers will be arriving at a single site, nor how many workers. However, if the project is found to fall within the requirements of the Act, carpooling or other transportation management planning will take place.

## **PART IV. MITIGATION DURING OPERATIONS**

### **A. Best Management Practices**

1. Operational BMPs will consist of company policies, operating and maintenance procedures, personnel training, good housekeeping, prohibition of undesirable practices, and other administrative practices to prevent or reduce pollution of waters of the state. Source control BMPs will consist of physical, structural or mechanical devices or structures that are intended to prevent pollutants from entering stormwater.
2. Operational BMPs will be adopted to implement good housekeeping, preventive and corrective maintenance procedures, steps for spill prevention and emergency cleanup, employee training programs, and inspection and recordkeeping practices as needed to prevent stormwater pollution.
3. Existing stormwater catchbasins and detention systems will be used and will continue to be inspected at least annually as part of the site preventive maintenance program.
4. During periods of heavy rainfall and after primary storage tanks have been filled or emptied, secondary containment structures will be inspected for accumulations of water.
5. The Supply System will periodically inspect the system to ascertain that the controls identified in the plan are adequate and to confirm that non-permitted discharges are not entering the stormwater system.
6. Source control BMPs consistent with those in the Stormwater Management Manual for the Puget Sound Basin (SWMM) will be employed in the design of fueling stations; vehicle and equipment washing and steam cleaning areas; loading and unloading areas for liquid materials; aboveground storage tank systems; container storage facilities; outside storage areas; and outside manufacturing and maintenance areas.

### **B. Monitoring of Revegetation or Vegetation Replacement**

The success of wetland and riparian revegetation will be monitored annually, with written reports to EFSEC and copies to WDFW and Ecology, for the first five years after construction. Revegetation of areas which are currently vegetated with native species is considered successful if the native herbaceous and/or woody cover is at least eighty percent of the total cover, and native species diversity is at least fifty percent of the diversity originally found in the wetland. If revegetation is not successful at the end of five years, the Supply System shall develop and implement (in consultation with a professional wetlands ecologist and the Departments of



Ecology and Fish and Wildlife) a plan to actively revegetate the wetland with native wetland herbaceous and woody plant species.

A five year monitoring plan shall be developed to assess mitigation success. For those restoration, creation or enhancement areas that do not meet the success standards provided in the foregoing paragraph after five years, additional replacement shall be provided as follows: an amount of forested wetland equal to three times the unsuccessfully restored forested wetland areas; and an amount of scrub/shrub or emergent wetland equal to two times the unsuccessfully restored scrub/shrub or emergent wetland areas.

1. A minimum five-year monitoring and contingency plan shall be required for all wetland impact and mitigation actions.
2. Development of the wetland compensatory mitigation plan will be based on the format and checklists specified in Ecology Publication #94-29, Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals.

## ATTACHMENT VII MITIGATION MEASURES AND PROJECT CONDITIONS

This attachment to the Site Certification Amendment (SCA) incorporates agreements made with the Washington Department of Ecology (Ecology) and Department of Fish and Wildlife (WDFW), and mitigation measures included in the SCA Application.

### **PART I. GENERAL CONDITIONS**

#### **A. Mitigation Principles**

The principles of impact assessment which have been applied to the currently expected impacts and which shall be applied to all unforeseen impacts are, in descending order of importance, 1) avoid the impact wherever possible; 2) minimize the impact; 3) provide on-site, in-kind mitigation; and lastly, 4) provide off-site compensatory mitigation.

The Supply System shall, prior to construction of the natural gas pipeline, create a detailed pipeline construction plan which shall contain, at a minimum, the following mitigation measures including construction methodology, surface water runoff control, study schedules, and erosion and sedimentation control. To the extent that one or more of the following standards or requirements cannot be met, the Supply System will confer with EFSEC and its designated representatives on the appropriate standard or requirement to be used.

#### **B. Required Plans**

The Supply System agrees to develop the following in consultation with EFSEC and its designated representatives:

##### **1. Natural Gas Pipeline Map**

A detailed map showing right-of-way acquisition and land uses impacted within the right-of-way. If the final alignment of the pipeline deviates from the proposed corridor, additional field investigations of cultural resources, vegetation (including wetlands), wildlife, and aquatic resources will be conducted as necessary to document the affected environment and potential impacts and mitigation measures.

##### **2. Environmental Protection Control Plan**

The Satsop Site's existing Environmental Protection Control Plan will be modified to specifically include the Satsop CT Project. The existing Environmental Monitoring Program will be modified to include specifications for commitments made concerning the Project and the associated natural gas pipeline.

The revised Environmental Protection Control Plan will be implemented to provide adequate maintenance and inspection of the erosion and sediment control system. The plan will specify that control structures will be inspected at a frequency sufficient to provide adequate environmental protection. Such inspections will increase in frequency during rainfall periods.

### 3. Erosion and Sedimentation Control Plan

An Erosion and Sedimentation Control Plan for the natural gas pipeline will be prepared to address crossings of sensitive areas, and submitted to EFSEC for review and approval prior to construction. The plan will include emergency implementation and response, damage control, and restoration activities for stream and wetland crossings, and for riparian and habitat areas, and will include detailed drawings which will identify areas where accretion may occur, and specific mitigation measures to be used to prevent or limit accretion will be identified.

The plan will include detailed information in the following areas:

- a. Description - A description of the nature and extent of proposed land disturbing activities (e.g., clearing, trenching, and grading).
- b. Existing Site Conditions - A description of the existing topography, bed rock lithology and structure, vegetation and drainage.
- c. Adjacent Areas - A description of neighboring streams, lakes, and drainage areas which might be affected by the land disturbance.
- d. Soils - A detailed account of the soils within the pipeline construction corridor, including soil names, erodibility, permeability, depth, texture, and soil structure.
- e. Critical Areas - A description of areas within the pipeline construction corridor which have potentially serious erosion problems, for example, areas of past or present soil movement.
- f. Erosion and Sedimentation Control Measures - A description of the control methods to be used including vegetative and structural controls and management measures (e.g., staging construction so no areas remain exposed for unnecessarily long period of time). Methods will be specific and include schedules and duration the control measure is expected to be used. An explanation will be included as to why selected methods are appropriate to the situation.
- g. Permanent stabilization - A detailed description, including specifications of how the corridor will be stabilized after completion of construction.

- h. Maintenance - An inspection schedule for all erosion control measures will be established. A maintenance schedule for erosion and sediment control structures will be set forth.
  - i. Calculations - Any calculations made for the design of erosion control structures, such as sediment basins, will be included.
  - j. Contingency Plans - Contingency plans for emergency situations and project abandonment will be outlined.
  - k. Pipeline Construction Corridor Plan - High resolution maps of the construction corridor will be provided which will include: a vicinity map, existing contours, vegetation and soils, critical erosion areas, existing drainage patterns, limits of clearing and grading, location of control measures, and detailed drawings of control structures.
- 4. Blasting Plan
  - 5. Restoration of Natural Gas Pipeline Right of Way Plan  

This plan will include restoration and maintenance practices, schedules, monitoring methods, contingencies, and noxious weed control measures.
  - 6. Construction Water Use and Control Plan for the Natural Gas Pipeline
  - 7. Storm Water Control Plan  

Storm water control for the natural gas pipeline and the site will be subject to the existing National Pollution Discharge Elimination System (NPDES) Permit. A storm water discharge plan for the pipeline will be submitted, or water quality waivers with proposed limitations will be requested of EFSEC if appropriate.
  - 8. Spill Prevention and Countermeasure Plan  

A spill prevention containment, control and countermeasure plan, including petroleum and toxic material handling, storage, and spill response, has been prepared in accordance with EFSEC requirements. The plan will be updated prior to construction of the Satsop Combustion Turbine Project to include requirements in Amendment II of the SCA.
  - 9. An Emergency Response Plan
  - 10. Army Corps of Engineers Approval  

Army Corps of Engineers (ACOE) approval will be required for locating the gas pipeline where it would cross wetlands. A permit application has been made to the ACOE. Meetings and field visits have been made with federal and state agency staff to review the

proposed crossing locations and methodologies. Discussions and work are continuing on refining and/or revising crossing methodologies, and development of mitigation and construction monitoring measures that would be acceptable to the ACOE and other federal agencies. Final ACOE permits will not be issued until after Section 401 Certification is issued by the state. Section 401 Certification would be issued concurrent with the Site Certification Agreement.

#### 11. Wildlife Studies and Mitigation Plan

- a. Upon completion of the final route details for the gas pipeline and prior to construction, clarification will be sought from EFSEC concerning the need for additional wildlife studies.
- b. Prior to construction, a new survey for the presence of Bald Eagle nesting or feeding habitat areas will be made for the impact area of the gas pipeline. If nests or feeding habitat are found, a mitigation plan will be developed with consultation from state and federal agencies.
- c. The U.S. Fish and Wildlife Service will be contacted prior to construction of the project to update the list of endangered, threatened, and candidate species. If there are any new species listed, coordinate any possible mitigation measures with the appropriate agency.
- d. WDFW will be contacted periodically for updated information from the Natural Heritage Data Systems.

#### 12. Geotechnical Studies

Detailed geotechnical studies will be performed to identify the final pipeline alignment and to provide input to the final design criteria.

#### 13. Traffic and Transportation Plan

A Traffic and Transportation Plan, including proposed design or mitigation measures, will be prepared for the construction phase and submitted to EFSEC for review.

#### 14. Historic Boundary Determination

A Historic Boundary Determination of HSN-2 will be made and a determination of eligibility requested if the gas pipeline route will cross through the site.

## PART II. CONSTRUCTION METHODOLOGY

### A. Erosion Control

1. Construction activities will be controlled to help limit erosion. Clearing, excavation and grading will be limited to those areas of the project absolutely necessary for construction of the project. Areas outside the construction limits will be marked in the field and equipment will not be allowed to enter areas or to disturb existing vegetation.
2. The Supply System's construction contractors will implement an Erosion and Sedimentation Control Plan during construction to minimize soil loss due to surface water flows. Construction activities for access roads and extra working areas will be controlled to the extent possible to help limit erosion. Clearing, excavation, and grading will be limited to extra working areas and the construction of access roads. Best Management Practices (BMPs) will be designed and implemented for each extra working site construction. BMPs include limiting certain construction activities and installing control structures as described below.
  - a. Sediment Traps/Retention Ponds: Sediment traps/retention ponds will be constructed to intercept runoff from disturbed areas and will be located away from natural stream channels. A sufficient number of traps/ponds will be constructed to intercept runoff from the disturbed area, with sufficient capacity provided for the required storm event and accumulated sediment. The traps/ponds will not be constructed on fill material.
  - b. Silt Fences: Silt fences will be installed in locations where they will trap silt eroded from slopes during construction and prior to reestablishing vegetation. Silt fence construction specifications, including fabric equivalent opening size, spacing and length will be determined by local conditions.
  - c. Check Structures and Slope Ditches: Check structures such as dikes and swales will be used to reduce runoff velocity as well as divert surface runoff around and away from cut-and-fill slopes. A swale or slotted pipe will be provided on the upstream side to divert runoff from the dike and such runoff will be discharged to a sediment trap.
  - d. Temporary Water Conveyance Structures: Temporary pipe installed on the surface may be used for temporary drainageways. Where piping is not possible, temporary earth channels will be constructed. All temporary drainage ways in disturbed areas will be protected to prevent erosion as specified in current standards.
  - e. Permanent Waterways: Some waterways that are to be part of the permanent stormwater drainage system will be constructed early during construction to carry construction runoff. Where applicable at the proposed plant site, existing stormwater control ways may be utilized.

- f. Vehicle Entrance Stabilization: Stabilized construction vehicle entrances will be established with tire wash provisions to reduce the amount of soil transported onto nearby roads and highways.
3. Surface runoff will be diverted around and away from cut and fill slopes and conveyed in pipes or protected channels. If the runoff is from disturbed areas, it will be directed to a sediment trap/retention pond prior to discharge.
4. Vegetation will be re-established on all disturbed slopes in accordance with Attachment II of the SCA.
5. Geotextiles will be used to minimize water migration in areas with potentially unstable slopes. French drains or other dewatering methods will be used for slopes that have the potential to become unstable due to their water content, and for areas with perched water in soils susceptible to liquefaction.
6. In areas with relatively shallow problem soils, trenches will be excavated to a depth where suitable bedding materials are present.
7. The toe of unstable slopes will be stabilized through the use of gabions or retaining walls in areas of Class III or Class IV slope instability.
8. In areas where low permeability topsoils occur at or near the surface, compaction of trench backfill will be completed using native soils compacted to match, as closely as possible, the density and permeability of the surrounding undisturbed soils.
9. Fuller Creek

Particular care will be taken to prevent erosion from reaching Fuller Creek during plant construction. Construction runoff will be routed to existing pond C-1 or F-2 ponds.

B. Wetland and Aquatic Standards

1. Timing
  - a. All "out of the water" soil or stream bed disturbing activities associated with wetland, stream, or river crossings shall occur during the dry portion of the year, typically late spring through early fall.
  - b. Construction related activity within the active stream or river channel and/or within fifty feet of the bank shall be limited to the period of July 1 through September 30.
2. General Construction Procedures

- a. Notify EFSEC and its designated representatives at least 48 hours prior to commencement of pipe installation activities or blasting within each water body.
- b. In wetlands and riparian areas, limit the construction rights-of-way to fifty feet or less.
- c. In wetlands and riparian areas, vegetation that must be removed shall be cut at ground level, leaving existing root systems intact. Limit pulling of tree stumps and grading activities to those that would directly interfere with trenching, pipe installation and backfill.
- d. If standing water or saturated soils are present, use low ground weight construction equipment and/or operate on prefabricated equipment mats. Matting will be used in all cases where there is water within the upper 18 inches of soil.
- e. In the event that matting is necessary, all construction activities will be carried out from the matting. Equipment will not be allowed in the wetland, off the mats, at any time. The mats will be inspected prior to placing in the wetland and mats with foreign material will not be used.
- f. Use trench plugs as necessary to prevent diversion of water into upland portions of the pipeline trench.
- g. Appropriate culvert sizing, placement and installation will be determined by site specific hydrology to ensure proper drainage regimes and that fish passage is maintained.
- h. Construct crossings as perpendicular to axis of stream channel as engineering and routing conditions permit.
- i. Maintain downstream flow rates at all times.
- j. Complete instream construction in minor streams within 24 hours of initiation.
- k. Install and maintain sediment filter devices at all streambanks.
- l. Perform daily inspection and repair as needed.
- m. Return streambank to original contour where possible.
- n. Revegetate immediately after construction using vegetation that is fast to establish and plant native plants such as willows and cottonwood for long-term stabilization.
- o. Use log deflectors that create sediment deposition and plant establishment to stabilize banks where possible.



- p. Minimize the use of riprap to areas where flow conditions preempt vegetative stabilization.
  - q. Locate all staging areas, additional spoil storage areas, and other additional work areas at least fifty feet away from the ordinary high water mark or wetland boundary. In no event shall vegetation be cleared between these areas and the water body or wetland. Limit size to minimum needed to construct the wetland or water body crossing..
  - r. Limit the size of areas disturbed when constructing a stream crossing.
  - s. Avoid storing hazardous materials, chemicals, fuels, and lubricating oils, or perform concrete coating activities within floodplain (at least 100 feet from bank).
3. Access, Staging, and Ancillary Areas
- a. All equipment crossing a water body must use a construction bridge. Culvert crossings are not allowed.
  - b. All equipment bridges shall be designed to pass the maximum flow and be maintained to prevent flow restrictions during the period that the equipment bridge is in place.
  - c. The only access roads, other than the construction right of way, which may be used in wetlands are those existing roads that can be used with no modification and no impact on the wetland.
  - d. Locate all staging areas, additional spoil storage areas, and other additional work areas at least fifty feet away from the ordinary high water mark or wetland boundary. In no event shall vegetation be cleared between these areas and the water body or wetland. Limit size to minimum needed to construct the wetland or water body crossing.
  - e. Refuel all construction equipment at least 100 feet from water bodies or wetland boundaries.
  - f. All equipment will be cleaned and inspected prior to entering the wetland. Leaking equipment will not be allowed to enter the wetland.
  - g. Grading will not take place within the boundaries of any wetland, and disturbance will be kept to the minimum necessary to safely construct the pipeline.
  - h. All activities within the wetland will be kept to the minimum disturbance area possible. Pipe sufficient to cross the wetland will be welded on the right-of-way and X-rayed before being carried or pulled into the wetland and lowered into the trench. In long wetland stretches, it may be more feasible to weld up several joints of pipe, carry them into the trench leaving one end at the welding location, weld on additional lengths, pull

them into the trench, and repeat this process until the entire wetland length has been crossed.

- i. The upper 6 to 12 inches of topsoil will be removed and protected throughout construction.
- j. The materials removed from the trench below the topsoil level are not to be placed on top of, or mixed with, the topsoil material previously removed.
- k. Once the pipe has been laid in the trench, the subsoil will be replaced, followed by the topsoil. Excess material will be transported out of the wetland and spread on the right-of-way outside the wetland boundaries.

#### 4. Spoil Pile Placement and Control

All spoil material from water body crossings must be placed in the right of way at least ten feet away from the ordinary high water line, or in additional spoil storage areas located as required in paragraph II.B.3.d of this Agreement. At a minimum, all spoil shall be contained within sediment filter devices.

#### 5. Specific Stream and River Crossing Methods<sup>1</sup>

<u>STREAM NAME</u>	<u>STREAM NO.</u>	<u>METHOD</u>
Fuller Creek	22.0488	Span
Unnamed	22.0489	Bore and Jack or Directionally Drill
Workman Creek	22.0490	Bore and Jack or Directionally Drill
Unnamed	N/A	Standard dry method with berms
Unnamed	22.0520	Standard dry method with berms
Chehalis River	22.0190	Bore and Jack or Directionally Drill
Unnamed	N/A	Standard dry method with berms
Sand Creek	22.0534	Standard dry method with berms
Mox Chehalis Creek	22.0533	Bore and Jack or Directionally Drill
Unnamed Trib.	22.539	Standard dry method with berms
Unnamed Trib.	14.0018	Standard dry method with berms
Unnamed Trib.	N/A	Standard dry method with berms
Kennedy Creek	14.0012	Standard dry method with berms
Unnamed	N/A	Standard dry method with berms
Unnamed	N/A	Standard dry method with berms
Swift Creek	13.0139	Standard dry method with berms
Cedar Flats Creek	13.0141	Bore and Jack or Directionally Drill
McLane Creek	13.0138	Standard dry method with berms

<sup>1</sup> Subject to engineering feasibility and Army Corps of Engineer requirements.

Unnamed Trib.	13.0132	Standard dry method with berms
Black Lake Drainage	13.0030	Bore and Jack or Directionally Drill
Unnamed	N/A	Standard dry method with berms
Unnamed	23.0694	Standard dry method with berms
Deschutes River	13.0028	Attach to county road bridge
Unnamed	N/A	Standard dry method with berms

#### 6. Hydrostatic Testing

- a. Perform 100 percent radiographic inspection of all section welds prior to installation under water bodies or wetlands.
- b. Screen the intake hose (1/8" mesh) to prevent entrainment of fish. The maximum approach velocity shall not exceed 0.4 feet/second.
- c. At least thirty days prior to use, provide to EFSEC a list of specific locations proposed for withdrawal and discharge of hydrostatic test water and allow EFSEC to review and comment on the list in consultation with WDFW and Ecology.
- d. Notify EFSEC and its designated representatives of intent to begin using specific sources at least 48 hours prior to testing.
- e. Maintain adequate flow rates at all times to protect aquatic life and provide for all other water body uses, including downstream withdrawals.
- f. Hydrostatic test manifolds shall be located outside wetlands and riparian areas.
- g. Regulate discharge rate and use energy dissipation device(s) in order to prevent erosion of upland areas, stream bottom scour, suspension of sediments, or excessive stream flow.
- h. When hydrostatic testing is complete, the test water will be analyzed and treated if necessary to make it suitable for discharge in compliance with the water withdrawal and discharge permits issued for the project. The water will be discharged into ponds or holding areas and discharged through filtering media before it enters any water course. Erosion protection measures will be incorporated into the water discharge procedures. Final discharge plans will be developed in consultation with EFSEC.
- i. Pipe that is prepared for stream crossings will be air tested before placement. Pipe installed in rivers will be hydrostatically tested prior to installation. If leaks are detected, they will be repaired or the pipeline section replaced and the section retested.

#### 7. Restoration, Stabilization, and Revegetation

- a. Immediately after pipeline crossing, placement to a minimum depth of one (1) foot of clean, round spawning gravel must be done in all disturbed streambed areas.
- b. Placement and securing of acceptable instream fish cover features at a maximum interval of ten (10) feet along disturbed banks must be done on both sides of the stream. Instream cover features shall be woody debris including root wads or well-branched triple tree top bundles with the following specifications:

<u>Stream Toe Width</u>	<u>Root Wad Dia. and Attached Trunk Length</u>	
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Up to 10 feet	2 feet	5 feet
10 to 40 feet	3 feet	10 feet
More than 40 feet	4 feet	15 feet

<u>Stream Toe Width</u>	<u>Tree Top Dia. and Length</u>	
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Up to 10 feet	4 inches	5 feet
10 to 40 feet	6 inches	10 feet
More than 40 feet	8 inches	15 feet

- c. The instream cover features shall project into the low-flow water margin a minimum of the diameter of the required root wad.
- d. Suggested native species that may be used for revegetation in emergent wetlands include:

slough sedge (*Carex obnupta*)  
 American bulrush (*Scirpus americanus*)  
 small-fruited bulrush (*Scirpus microcarpus*)  
 Watson's willow herb (*Epilobium watsonii*)  
 spike rush (*Eleocharis palustris*)  
 cattail (*Typha latifolia*)  
 speedwell (*Veronica*, spp)  
 mint (*Mentha arvensis*)  
 cut-leaved water horehound (*Lycopus americanus*, L.  
 unifora)  
 angelica (*Angelica*, spp.)  
 water parsley (*Oenanthe garmentosa*)  
 cow parsnip (*Heracleum lanatum*)

### C. Upland Standards

1. Retain selected oak in protected "islands" within right of way.
2. Plant standard size apple and crabapple or other appropriate fruit producing trees along right of way in selected locations, more than fifteen feet from centerline of pipe.
3. Retain snags and allow for snag recruitment. Retain and replace down woody material.
4. During construction of the pipeline, if trees need to be removed at some right-of-way locations, the treeline edge will be cut in an irregular pattern to reduce a linear swath appearance.
5. When pipeline construction is complete, the corridor will be replanted with (a) native, non-invasive plant species to prevent invasive plant species from becoming established and altering the plant community, or (b) returned to a condition agreed to by the landowner (for example, returned to a condition suitable for planting crops).
6. In areas where vegetation may need to be temporarily cleared for construction-related activities, removal of woody vegetation will be minimized by using the narrowest corridor possible and locating staging areas elsewhere. Construction in areas consisting of woody vegetation will be avoided whenever feasible, because areas temporarily cleared of herbaceous vegetation are more quickly restored over time.
7. Replanting will be done as soon as possible to prevent invasive species from becoming established and all species planted will be native to the region.
8. Reforestation of areas not maintained as right-of-way. Seedlings will be replanted to begin regeneration of forest habitat. A minimum of 300 seedlings per acre will be planted. Species included in the mix are Douglas fir, western hemlock, western redcedar, Sitka spruce, western white pine, red alder, and bigleaf maple. Species mixes will be appropriate to the area. Factors affecting the species mix include geographic location, soil characteristics (including soil moisture regimes), and adjacent forested plant species composition.
9. Revegetation of shrubby areas not maintained as right-of-way. Shrubs will be replanted in areas currently composed of shrubby vegetation. The following species are included in the mix: red elderberry, hazel, Indian plum, oceanspray, and cascara. The species mix will increase the habitat value of the mitigation area, and will be appropriate to the area. Geographic location, soil characteristics, and adjacent shrubby vegetation composition are factors affecting the species mix. Root stock that is approximately 3 feet in height is preferred. If suitable size shrubs cannot be found, younger stock may be introduced in a nursery enclosure (to prevent deer browsing of young plants) until the shrubs are about 3 feet high.

10. Revegetation of grasslands in shaded areas. Seed will be broadcast in areas that will be shaded for most of the day. The species included in this seed mix are (the numbers in parentheses indicate the pounds per acre of that species): fine fescue (17.0), big trefoil (2.0), annual ryegrass (1.0), and white Dutch or subterranean clover (2.0) for a total of 22.0 pounds of seed mix per acre. This seed mix would also be broadcast in areas of shrub and tree plantings to minimize the potential for erosion between completion of pipeline construction and replanting (shrubs and seedlings will be planted at times to optimize their chances of survival which may not correspond with the construction schedule).

11. Revegetation of grasslands in open areas. The following seed mix will be broadcast to re-establish grassland habitat in open areas (the numbers in parentheses represent the number of pounds per acre of that species): perennial ryegrass (2.0), annual ryegrass (2.0), orchard grass (dwarf if available) (4.0), tall fescue (1.0), yellow sweet clover (4.0), red (white Dutch or subterranean) clover (2.0), and birdsfoot trefoil (5.0) for a total of 20.0 pounds of seed mix per acre.

D. White Top Aster

1. The narrowest construction corridor possible will be used in areas with White-Top Aster.
2. A turf cutter will be used over the trench corridor to remove the prairie turf with the white-top aster. The turf cutter should cut about 6 inches deep. The turf will be rolled up and stored until construction in the prairie habitat is complete. When the subsoils and topsoils have been backfilled, the turf will be replaced. Rolled-up turf must be watered to prevent soil desiccation. The turf must be watered when replaced and watering may be necessary if precipitation levels are unseasonably low.
3. If feasible, construction will occur between mid-October and early April when the plant is dormant.
4. Topsoils excavated from the trench (6" to 18") will be stockpiled separately from the subsoils and will be backfilled over the subsoils when installation is complete.
5. The construction corridor will be revegetated, as necessary, with other plant species native to Tenalquot Prairie such as Idaho fescue (*Festuca idahoensis*). The plants used to revegetate the construction corridor will be native to the prairie so that the vegetation growing over the construction corridor resembles the naturally-occurring plant composition of the prairie.
6. Idaho fescue plugs will be collected, divided, and replanted, as necessary, to ensure survival of native prairie species and minimize the opportunity for invasive species to become established.

7. Invasive plant species (that are not native to the prairie) are adjacent to the pipeline corridor. Therefore, revegetation of the construction corridor will be conducted as soon as construction is complete to prevent invasive plants from becoming established.

E. Fugitive Dust

Fugitive dust will be controlled by spraying water on dry earth in the active construction areas.

**PART III. CONSTRUCTION MITIGATION**

A. General Wildlife Habitat

1. The Supply-System construction contractor for the pipeline will be required to replant disturbed habitats with native vegetation to reduce the duration of habitat disturbance. In areas requiring maintenance, they will plant native grassland species which need less frequent maintenance than native pioneer shrubs, thus reducing the frequency of human activity in this habitat.
2. The pipeline route was relocated in the vicinity of the Chehalis River to increase the distance of the pipeline from a bald eagle nest. The nest was approximately 1,000 feet from the original alignment, but is now approximately 2,000 feet from the proposed route. Because the nest is more than 0.25 mile from the nest, there will be no timing restrictions on construction, unless new nesting sites are determined (See I.C.13.a).
3. Transmission lines will be designed to be safe for raptors using techniques recommended by Olendorff et al. (1981), thus eliminating the potential hazard of electrocution for bald eagles as well as other raptors.
4. Native vegetation will be retained as much as possible in the impact area to preserve wildlife habitat and provide a buffer of vegetation from surrounding habitat areas. Shrub habitat will be maintained at low to medium vegetation heights in the rights-of-way.
5. Restore and revegetate the 25-foot wide construction easement with native plant species favorable to wildlife immediately following construction consistent with a site-specific vegetation plan and landowners agreements, as appropriate.
6. Relocate nest boxes for western bluebirds and wood ducks that will be disturbed by construction of the pipeline.

A. Wetland Habitat

1. Wetland restoration, creation and enhancement will not result in a net loss of wetland acreage and functions.
2. In-kind replacement of functions and values is preferred.

3. Where in-kind replacement is not feasible, substitute resources of equal or greater ecological value will be provided.
4. Biologists are continuing to work with the Army Corps of Engineers and other federal and state agencies to avoid wetlands, especially high quality wetlands and forested wetlands. Some route revisions may result based on wetland determinations.
5. Wetland mitigation for the project is focused on avoidance and restoration. Avoidance of impacts to wetlands and wetland functional values will occur by physically avoiding contact with the wetlands. Although it is not possible to avoid all of the wetlands in the construction corridor, wetlands have been avoided whenever feasible. An emphasis on avoidance has been made for considered for high quality wetlands and wetland types which are difficult to replicate (e.g., forested wetlands).
6. Where avoidance of wetlands is not possible, the following mitigation measures will be implemented:
  - a. Construction techniques for minimizing compaction and mixing of wetland soils.
  - b. Temporary erosion and sedimentation controls including use of hay bales and siltation/sedimentation fences.
  - c. Conducting construction activities during the dry season to the extent possible.
  - d. Avoiding scrub-shrub and forested portions of wetlands to the greatest extent possible.
  - e. Retaining and backfilling wetland topsoils.
  - f. Regrading wetland basins to the original elevation and contour.
  - g. Re-vegetation of wetland types using native, non-invasive species.
  - h. Reestablishing hydrologic regimes (water inflow and outflow).
7. Compensation

A combination of wetland enhancement and creation to compensate for proposed wetland impacts will be implemented where avoidance of wetlands is not possible. Compensation for unavoidable losses will include:

  - a. For wetlands filled and lost, wetland acreage shall be replaced by creation at a 3 to 1 replacement ratio by wetland type (ratio to be doubled for enhancement of existing wetlands).
  - b. For wetlands that are disturbed but not lost, the following shall apply:



1. Forested Wetlands. Disturbance impacts to forested wetlands shall be mitigated by both: restoration of the disturbed area to either forested wetland or scrub/shrub wetland; and either replacement with other forested wetland (restoration or creation) in an amount equal to the disturbed area, or enhancement of disturbed emergent herbaceous wetland to forested wetland in amount equal to twice the disturbed area.
2. Scrub/Shrub Wetlands. Disturbance impacts to scrub/shrub wetlands shall be mitigated by both: restoration of the disturbed area to scrub/shrub wetland; and either replacement with other scrub/shrub wetland (restoration or creation) in an amount equal to one-half the disturbed area, or enhancement of disturbed emergent wetland to scrub/shrub wetland in an amount equal to the disturbed area.
3. Emergent Wetlands. Disturbance impacts to emergent herbaceous wetlands shall be mitigated by restoration of the disturbed areas to native emergent herbaceous wetland.

B. Upland Habitat

1. Forest Habitat

- a. For forest areas that are cleared and that cannot be restored to forest habitat, mitigation shall be by replacement of forest habitat (restoration or creation) in an amount equal to twice the unrestored forest area.
- b. For forest areas that are restored in place to forest habitat, mitigation shall be by restoration or creation of additional forest habitat in an amount equal to one-half the restored forest area.
- c. In either (1) or (2) above, planting of trees in formerly disturbed herbaceous sites (such as abandoned agricultural fields) shall qualify.

2. Shrub Habitat

- a. For shrub areas that are cleared and that cannot be restored to shrub habitat, mitigation shall be by replacement of shrub habitat (restoration or creation) in an amount equal to twice the unrestored shrub area.
- b. For shrub areas that are restored in place to shrub habitat, mitigation shall be by restoration or creation of additional shrub habitat in an amount equal to one-half the restored shrub area.
- c. In either (1) or (2) above, planting of shrubs in formerly disturbed herbaceous sites (such as abandoned agricultural fields) shall qualify.

### 3. Prairie and Native Oak Forest

The Supply System shall fund, design and implement an off-site prairie restoration project in Thurston County to restore lost prairie habitat values. The specific location of the prairie enhancement efforts shall occur on existing public lands identified by the Prairie Landscape Working Group. The project shall consist of the following two actions:

- a. A controlled burn or mechanical removal (mowing) to accomplish the initial removal of scotch broom on an area of existing prairie equal to two times the area of prairie habitat affected by pipeline construction activities; and
- b. One-time removal of invading conifer growth on 25 acres of established native oak forest.

### 4. Herbaceous Habitat

Disturbance impacts to herbaceous habitat shall be mitigated by restoration of the disturbed areas in place with safeguards against weedy invasive species.

## C. Pipeline Right-of-Way

1. Wherever feasible, construction activities will occur outside of the planting/growing/harvesting period to minimize cropland productivity impacts.
2. Negotiations with land owners for easement compensation will be conducted prior to construction. If the land owners refuse to grant the easements and if all reasonable efforts to satisfy their concerns have been exhausted, then the Supply System will consider other options including minor re-route of the pipeline.
3. Compensation to farmers for crop removal and/or damage or lost productivity caused by the construction activities will be negotiated based on actual impact.
4. Compensation to farmers for land permanently removed from productive use by construction of the project will be negotiated based on the productive use of that land.
5. Equipment cleaning and washing procedures will be implemented to prevent the spread of noxious weeds.
6. The Supply System will coordinate construction activities with farmers to ensure (a) livestock access to feeding and watering stations, and (b) continued access across the right-of-way for farm equipment.
7. Compacted soil will be loosened by tilling after the pipeline is installed and backfilled.

8. The pipeline corridor will be replanted with native vegetation after completion of construction.
9. Fences and gates removed during construction will be replaced.

D. Noise

The following construction sound abatement measures will be included in the project construction specifications to mitigate construction sound impacts:

1. Construction will not be performed within 1,000 feet of an occupied dwelling unit on Sundays, legal holidays, or between the hours of 10:00 P.M. and 6:00 A.M. on other days.
2. All construction equipment will have sound control devices no less effective than those provided on the original equipment. Equipment will not be operated with unmuffled exhaust systems.
3. Pile driving or blasting operations, if required, will not be performed within 3,000 feet of an occupied dwelling unit on Sundays, legal holidays, or between the hours of 8:00 P.M. and 8:00 A.M. on other days.
4. Notice of the proposed construction schedule and locations will be well publicized in the area, and nearby residents will be notified in advance of the anticipated schedule for construction activities.

E. Historic and Cultural Preservation

The Supply System and their construction contractor will coordinate with EFSEC and local Tribes to develop an acceptable construction monitoring plan and will implement the plan during construction of the proposed project.

F. Traffic and Transportation

The natural gas pipeline will be installed under major roadways and under railroads using boring and drilling techniques to avoid roadway and rail disruptions. After pipeline installation across roadways, the subgrade and surface of the roadways will be returned to their pre-existing conditions in accordance with state and local requirements.

G. Commuter Trip Reduction Act

The Commuter Trip Reduction Act is implemented in the eight largest counties in Washington State. Grays Harbor County is exempt, but Thurston County is subject to the Act. The Commuter Trip Reduction Act requires carpooling or other transportation management measures in work situations where 100 or more workers will be arriving at the same site between 6:00 and 9:00 a.m. for 12 months or longer. In Thurston County, only pipeline construction will occur as

part of the project, and it is not known at this time exactly how long workers will be arriving at a single site, nor how many workers. However, if the project is found to fall within the requirements of the Act, carpooling or other transportation management planning will take place.

## **PART IV. MITIGATION DURING OPERATIONS**

### **A. Best Management Practices**

1. Operational BMPs will consist of company policies, operating and maintenance procedures, personnel training, good housekeeping, prohibition of undesirable practices, and other administrative practices to prevent or reduce pollution of waters of the state. Source control BMPs will consist of physical, structural or mechanical devices or structures that are intended to prevent pollutants from entering stormwater.
2. Operational BMPs will be adopted to implement good housekeeping, preventive and corrective maintenance procedures, steps for spill prevention and emergency cleanup, employee training programs, and inspection and recordkeeping practices as needed to prevent stormwater pollution.
3. Existing stormwater catchbasins and detention systems will be used and will continue to be inspected at least annually as part of the site preventive maintenance program.
4. During periods of heavy rainfall and after primary storage tanks have been filled or emptied, secondary containment structures will be inspected for accumulations of water.
5. The Supply System will periodically inspect the system to ascertain that the controls identified in the plan are adequate and to confirm that non-permitted discharges are not entering the stormwater system.
6. Source control BMPs consistent with those in the Stormwater Management Manual for the Puget Sound Basin (SWMM) will be employed in the design of fueling stations; vehicle and equipment washing and steam cleaning areas; loading and unloading areas for liquid materials; aboveground storage tank systems; container storage facilities; outside storage areas; and outside manufacturing and maintenance areas.

### **B. Monitoring of Revegetation or Vegetation Replacement**

The success of wetland and riparian revegetation will be monitored annually, with written reports to EFSEC and copies to WDFW and Ecology, for the first five years after construction. Revegetation of areas which are currently vegetated with native species is considered successful if the native herbaceous and/or woody cover is at least eighty percent of the total cover, and native species diversity is at least fifty percent of the diversity originally found in the wetland. If revegetation is not successful at the end of five years, the Supply System shall develop and implement (in consultation with a professional wetlands ecologist and the Departments of

Ecology and Fish and Wildlife) a plan to actively revegetate the wetland with native wetland herbaceous and woody plant species.

A five year monitoring plan shall be developed to assess mitigation success. For those restoration, creation or enhancement areas that do not meet the success standards provided in the foregoing paragraph after five years, additional replacement shall be provided as follows: an amount of forested wetland equal to three times the unsuccessfully restored forested wetland areas; and an amount of scrub/shrub or emergent wetland equal to two times the unsuccessfully restored scrub/shrub or emergent wetland areas.

1. A minimum five-year monitoring and contingency plan shall be required for all wetland impact and mitigation actions.
2. Development of the wetland compensatory mitigation plan will be based on the format and checklists specified in Ecology Publication #94-29, Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals.

BEFORE THE STATE OF WASHINGTON  
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of Application  
No. 84-1,

WASHINGTON PUBLIC POWER SUPPLY  
SYSTEM,

SATSOP COMBUSTION TURBINE  
PROJECT.

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SATSOP COMBUSTION  
TURBINE PROJECT  
SETTLEMENT AGREEMENT

I. PARTIES

Washington Public Power Supply System (Supply System) is seeking an amendment to the existing Satsop Power Plant WNP-3 and WNP-5 Site Certification Agreement (SCA) from the Energy Facility Site Evaluation Council (EFSEC) to construct and operate the proposed Satsop Combustion Turbine project (Satsop CT Project or Project).

Washington Department of Ecology (Ecology) has a mandate to preserve, protect, manage, and perpetuate the state's water, wetlands/shorelines, air and other natural resources. Ecology is a party to the site certification adjudication before the Washington State Energy Facility Site Evaluation Council (EFSEC).

II. PURPOSE AND INTENT

The Supply System and Ecology (collectively the Parties) have been involved in discussions and negotiations related to the Project's potential effect upon the state's water, wetlands/shorelines, air and other natural resources. The Project consists of two natural gas fired turbine electrical generation plants and associated facilities including a water delivery and

return system, a 48-mile natural gas pipeline, and a transmission line connection facility. Through this Agreement Ecology and the Supply System set forth the obligations and restrictions that the Parties intend to have incorporated into the SCA as conditions for the Project should EFSEC recommend that the Project be certified. The obligations and restrictions set forth in this Agreement relate to resources that will be affected by construction and operation of the Project facilities at the Satsop site, and the construction and operation of the approximate 48-mile natural gas pipeline from Vail, Washington to the Satsop site, as these components are proposed at the time of entry of this Agreement. The Agreement does not address issues that may be raised at EFSEC proceedings outside the adjudicative hearing for the review of the project's PSD permit, NPDES permit or final SEPA documents.

### III. RESOLUTION OF ISSUES

The Supply System has undertaken preliminary site impact assessments to identify the major significant impacts expected from construction and operation of the Project facility and gas pipeline. The Parties agree that not all impacts may be known and therefore, the Agreement contains commitments to address currently expected specific impacts and a commitment to principles of impact assessment and mitigation for potential future unknown impacts.

#### A. WATER RIGHTS/QUANTITY:

The Supply System will limit its withdrawal of water from the Chehalis River for the two CT projects to a total of 9.5 cfs., 8.6 of the 9.5 cfs will be for power generation with the remaining 0.9 cfs for quench water to cool the Project discharge below the temperature set in the NPDES permit. The withdrawal will be subject to the following terms and provisions:

- 1) Priority Date: December 17, 1973, pursuant to EFSEC authorization.
- 2) Source: Chehalis River
- 3) Maximum Quantity:  
Instantaneous: 9.5 cfs  
Annual: 6,865.65 acre feet
- 4) Purpose of Use: 8.6 cfs for power generation by Combustion Turbine (CT) Project as described in II. above and 0.9 cfs for quench water to cool Project discharge below the temperature set in the NPDES permit.
- 5) Period of Use: year-round

6) Location of Withdrawal:

- a) 1400 feet east and 300 feet south of the northwest corner of S.15 T.17 N. R.7 W., E.W.M. (also known as the Ranney well);
- b) 3100 feet east and 400 feet south of the northwest corner of S.15 T.17 N. R.7 W., E.W.M. (also known as the Ranney well);

7) Legal Description of Property on Which Water is to be Used:

S. 7 T. 17 N. R. 6 W., E.W.M.

8) Description of Proposed Use: CT Project as described in II. above.

9) Development Schedule:

Begin Project: within ten year period requested by Supply System for site certification

Complete Project: within five years of beginning project

Water put to Beneficial Use: within two years of completion of project construction

10) Provisions:

a) The Supply System shall install new pumps or modify the existing pumps in the Ranney Wells to limit withdrawals to a maximum of 9.5 cfs and to any lesser amount required by minimum flow restrictions set forth in subsections (c) & (d) below.

b) Meter - An approved measuring device shall be installed and maintained in accordance with RCW 90.03.360, WAC 508-64-020 through -040. Installation, operation, and maintenance requirements may be obtained from the Department of Ecology's Southwest Regional Office, Water Resources Program. Meter readings shall be recorded at least monthly.

c) Instream Flow - The rate of diversion is limited to a maximum of 9.5 cubic feet per second. However the diversion shall be decreased (or stopped) as necessary to assure that the required minimum base flows immediately downstream of the point of



diversion are met. The required minimum base flows are established in WAC 173-522-020 and set forth in subsection (d) below. The 9.5 cfs is based on a maximum of 8.6 cfs withdrawal for power generation and an additional withdrawal of up to 0.9 cfs for quench water to be used to reduce the temperature of the discharge water from the CT Project. All withdrawals are subject to the withdrawal restrictions set forth herein concerning periods of low flow, and the quench water withdrawal is also limited to periods in which an additional withdrawal will actually reduce the temperature of the discharge.

- d) Standard Base Flow - This authorization is subject to the provisions of Chapter 173-522 WAC and the general rules of Ecology as specified under Chapter 173-500 WAC, and others. The base flows for this project were established at monitoring station 12.0350.02, mile 20, Sec. 7, T. 17 N., R. 6 W., E.W.M., and are presented in the table below:

Month	Day	Base Flow (cfs)	Month	Day	Base Flow (cfs)
January	1	3800	July	1	1085
January	15	3800	July	15	860
February	1	3800	August	1	680
February	15	3800	August	15	550
March	1	3800	September	1	550
March	15	3800	September	15	550
April	1	3800	October	1	640
April	15	3800	October	15	750
May	1	3910	November	1	1305
May	15	2300	November	15	2220
June	1	1750	December	1	3800
June	15	1360	December	15	3800

Base flow hydrographs, found on page 81 of "Water Resources Management Program in the Chehalis River Basin", dated November 1975, shall be used for definition of base flows for this project on those days not specifically identified in the above table. These base flows will also be established at Station 12.0350.02 (Chehalis River below confluence with Satsop River). No diversion of water, under this authorization, shall take place such that the flow of the river falls below the above flows.

- e) Equalization ponds - Supply System may use the existing and or modified equalization pond to store water in order provide the necessary water for the CT Project during the low flow periods set forth in the table above.
- f) Indian Rights - This authorization to make use of public water of the state is subject to existing rights, including any existing rights held by the United States for the benefit of Tribes under treaty or settlement.
- g) WRA - The Water Resources Act of 1971 specifies certain criteria regarding utilization and management of the waters of the State in the best public interest. Favorable consideration of the application has been based on sufficient waters available, at least during portions of the year. However, the Supply System agrees that Ecology has not waived its right to request of EFSEC that the use of water be subject to further regulation at certain times, based on the necessity to maintain water quantities for preservation of the natural environment.
- h) Water Resources - Under RCW 90.44.250 and 90.54.030, the Ecology is directed to become informed about all aspects of the water resources of the State. Ecology is authorized to make such investigations as may be necessary to determine the location, extent, depth, volume, and flow of all ground waters within the state. Accordingly, the Supply System shall monitor and provide an annual summary of the previous year's monthly static water level data and monthly totals of water pumped from this well. The summary shall be submitted in tabular format to EFSEC and to Ecology's Southwest Regional Office annually, during the month of February, or more frequently if requested by Ecology.
- i) Relinquishment - The Supply System agrees to voluntarily relinquish 30.5 cfs of the existing authorization at the Satsop site at the completion of the decommissioning and restoration of WNP No. 5 or five years from the date of the license amendment for this CT Project, whichever occurs first. The Supply System further agrees to voluntarily relinquish 40 cfs of the existing

authorization at the Satsop site at the completion of the decommissioning and restoration of WNP 3 or five years from the date of the license amendment for this CT Project, whichever occurs first. Ecology agrees not to challenge the Supply System's request to retain 40 cfs for WNP 3 if the Supply System decides to go forward with the WNP 3 project within five years from the date of the license amendment for this CT Project.

The Supply System agrees that it will not request any modifications of the authorization governing the 70.5 cfs during the five years period set forth above for any use other than the site restoration projects for WNP 3 and WNP 5 or the completion of the WNP 3 project.

Ecology and the Supply System agree that if future development on the site, unrelated to the CT Project, requires a water appropriation, the Supply System or the developer will apply for such appropriation to Ecology or EFSEC, whichever has jurisdiction over the project.

- j) Monitoring - A suitable gauge shall be installed at the location of Control Station No. 12.0350.02 (Chehalis River below the confluence with the Satsop River) to provide flow monitoring. The type, location and installation of the gauge shall be approved by EFSEC in consultation with the Department of Ecology's Southwest Regional Office, Water Resources Program.
- k) Withdrawal of water from ground water by the Supply System in an area near the confluence of the Chehalis and Satsop Rivers for any use other than domestic supply or fire suppression will be limited to 300 gpm and will be limited by restrictions set forth above on withdrawals during periods of low flows.
- l) Aberdeen Contract - The Supply System agrees to ensure that the contract between the Supply System and the City of Aberdeen that supplies 62 cfs to the Wynoochee River shall remain in force until the entire 70.5 cfs not being used for the CT Project is relinquished by the Supply System. Said Contract is attached as Attachment A and made a part of this settlement agreement.

- m) The Supply System agrees to obtain approval to perform hydrostatic testing of the proposed pipeline from EFSEC in consultation with Ecology and the Department of Fish and Wildlife.

B. WASTEWATER:

EFSEC will be issuing a new NPDES permit and will hold a hearing to receive comments after it issues a draft NPDES Permit. Ecology reserves its right to present comments on the draft NPDES Permit as issued by EFSEC, but agrees to withdraw its water quality issues from the adjudicative hearing.

C. AIR:

EFSEC will issue the Air Permit for the CT projects and will hold a hearing to receive comments after it issues a draft PSD Permit. Ecology reserves its rights to present comments on the draft PSD Permit as issued by EFSEC, but agrees to withdraw its air issues from the adjudicative hearing.

D. WETLANDS/SHORELANDS:

1. Ecology and the Supply System agree that the process set forth in Attachment B will govern the construction and operation of the approximately 48 mile natural gas pipeline to be installed between Vail, Washington and the Satsop site. Attachment B is incorporated into this agreement.
2. Ecology and the Supply System agree that, to the extent impacts to wetlands cannot be avoided in the construction of the natural gas pipeline, the impacts will be mitigated pursuant to the following guidelines:
  - a) Wetland restoration, creation and enhancement will not result in a net loss of wetland acreage and functions;
  - b) In-kind replacement of functions and values is preferred;
  - c) Where in-kind replacement is not feasible, substitute resources of equal or greater ecological value will be provided;

- d) For wetlands filled and lost, wetland acreage shall be replaced by restoration or creation at a 3:1 replacement ratio by wetland type (ratio to be doubled for enhancement of existing wetlands).
- e) For wetlands that are disturbed but not lost, the following shall apply:
- i) Forested Wetlands. Disturbance impacts to forested wetlands shall be mitigated by both: restoration of the disturbed area to either forested wetland or scrub/shrub wetland; and either replacement with other forested wetland (restoration or creation) in an amount equal to the disturbed area, or enhancement of disturbed emergent herbaceous wetland to forested wetland in amount equal to twice the disturbed area.
  - ii) Scrub/Shrub Wetlands. Disturbance impacts to scrub/shrub wetlands shall be mitigated by both: restoration of the disturbed area to scrub/shrub wetland; and either replacement with other scrub/shrub wetland (restoration or creation) in an amount equal to one-half the disturbed area, or enhancement of disturbed emergent wetland to scrub/shrub wetland in an amount equal to the disturbed area.
  - iii) Emergent Wetlands. Disturbance impacts to emergent herbaceous wetlands shall be mitigated by restoration of the disturbed areas to native emergent herbaceous wetland.
  - iv) Monitoring. A five year monitoring plan shall be developed to assess mitigation success. For those restoration, creation or enhancement areas that do not meet the success standards provided in paragraph II.C.1.h(3) of Attachment B after five years, additional replacement shall be provided as follows: an amount of forested wetland equal to three times the unsuccessfully restored forested wetland areas; and an amount of scrub/shrub or emergent wetland equal to two times the unsuccessfully restored scrub/shrub or emergent wetland areas.

- f) A minimum five year monitoring and contingency plan shall be required for all wetland impact and mitigation actions.
  - g) Development of the wetland compensatory mitigation plan will be based on the format and checklists specified in Ecology Publication #94-29, Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals.
- 3) The Site Certification Agreement shall ensure consistency with Washington's Coastal Zone Management program including the following laws:
- a) The Shoreline Management Act and the individual master programs of Thurston and Grays Harbor counties and any affected communities therein;
  - b) The State Environmental Policy Act;
  - c) The Federal Water Pollution Control Act and the State Water Pollution Control Act;
  - d) The Federal Clean Air Act and the State Clean Air Act.
- 4) The Supply System shall assure that measures are taken during construction and operations at the project site and pipeline route that will protect public health and safety from flood hazards. Such measures include minimizing impacts at river and stream crossings and other areas within the 100-year floodplain and floodway, as identified by Federal Emergency Management Agency maps, to provide for adequate conveyance of flood waters, including the assurance of no significant rise in base flood elevations.

E) SPILL MANAGEMENT:

1. Spill Prevention Control and Countermeasure (SPCC) Plan:

The Supply System will prepare an SPCC plan approved by a Professional Engineer that includes the amount and type of oil(s) to be stored at the project site, patterns of usage, transfer procedures and other factors which will indicate the magnitude of spill potential. The SPCC plan will also describe procedures for securing valves, type of gauges, dike size and design, site security, lighting,

alarms, spill response materials and equipment, inspection procedures, personnel training, emergency procedures and spill notification requirements. The SPCC plan will also include location and topographic maps, accurate diagrams of the storage tank, dike(s), piping, valves, transfer pad and other significant components of the oil storage and delivery system.

2) Tank Containment:

Within the oil storage tank containment dike, an impervious barrier will be installed to keep spilled oil from entering waters of the state. Design of the impervious tank containment must address stormwater management and be approved by a Professional Engineer.

3) Transfer/Loading Area:

If the oil transfer or loading area is located outside of the storage tank containment area, the area surrounding the oil transfer pad will be adequately curbed and sealed to prevent entry of any spilled oil into the soil, ground water or surface waters. In the alternative, the Supply System may raise the loading area with drainage directed into the diked tank storage area. Either approach selected must be approved by a Professional Engineer.

4) Construction Phase Spill Prevention:

In order to prevent spills of petroleum products or toxic materials that could contaminate soil, ground water or surface waters during the construction phase, the Supply System will have a spill prevention program in place. This program must address oil/chemical storage, containment, site security and personnel training.

5) Construction Phase Spill Containment and Control:

In order to minimize the environmental impact from any spill of petroleum products or toxic materials during the construction phase of the project, the Supply System will have a spill contingency plan. This plan must address measures that will be taken to control and contain discharge, cleanup actions, notification of appropriate agencies and a list of available oil cleanup materials.

F) Other:

1. SEPA:

Ecology reserves the right to raise SEPA issues during the review of final environmental impact statement (EIS) issued by BPA or the review of EFSEC's decision to adopt, incorporate, issue an addendum, modify or supplement the final EIS issued by BPA. Ecology agrees to withdraw its SEPA adequacy issues from the adjudicative hearing. The Supply System will not oppose an Ecology request that EFSEC refrain from issuing any proposed determination to recommend that the Project be certified until after BPA has issued its Final EIS for the Project and EFSEC or its consultant has fully reviewed BPA's Final EIS. The Supply System also will not oppose to support Ecology if EFSEC decides to adopt BPA's Final EIS without modifying or supplementing the Final EIS and Ecology requests a public hearing on that decision.

#### IV. WITHDRAWAL OF OBJECTIONS

Based on the above commitments made by the Supply System and the above restrictions agreed to by the Supply System, Ecology stipulates to the withdrawal, from the adjudicative hearing, of it issues identified as #1-39 on pages 4-10 of the Final Consolidated Issues List filed with EFSEC and dated June 22, 1995.

Ecology specifically reserves the right to raise air quality, water quality and State Environmental Policy Act issues in the separate proceedings on the PSD permit, the NPDES permit and the adoption of the BPA environmental impact statement which will be held by EFSEC.

DATED this 14 day of <sup>August</sup>~~July~~ 1995.

Thomas C. Morrill  
THOMAS C. MORRILL  
JO MESSEK CASEY  
Assistant Attorneys General  
Attorneys for Department of Ecology

Terry Husseman  
TERRY HUSSEMAN  
Deputy Director  
Department of Ecology

Charles R. Blumentfeld  
CHARLES R. BLUMENFELD, Bogle & Gates  
JEFF LEPPCO, Bogle & Gates  
Attorneys for Washington Public Power Supply System



## ATTACHMENT A

## CONTRACT FOR WATER SUPPLY

THIS CONTRACT is made and entered into as of this 11th day of June, 1980, by and between the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, a municipal corporation of the State of Washington, PACIFIC POWER & LIGHT COMPANY, a Maine corporation, PORTLAND GENERAL ELECTRIC COMPANY, an Oregon corporation, PUGET SOUND POWER & LIGHT COMPANY, a Washington corporation, and the WASHINGTON WATER POWER COMPANY, a Washington corporation, hereinafter collectively referred to as "the Utilities," and the CITY OF ABERDEEN, a municipal corporation of the State of Washington, hereinafter referred to as "the City."

WHEREAS, the City has agreements with the United States of America and the Washington State Department of Ecology whereby the City has acquired rights to a maximum flow of 300 cubic feet per second (cfs) flowing in the Wynoochee River at the City's diversion dam located on the Wynoochee River at approximately mile eight; and

WHEREAS, the Utilities have a need to have the City's assurance that there will be a continuous flow of untreated water past river mile 8.1 of the Wynoochee River of 62 cfs in addition to the amount currently required (50 cfs) in order to satisfy the requirements of federal and state agencies with respect to the Washington Nuclear Projects Nos. 3 and 5 under construction by Washington Public Power Supply System on behalf of all of the Utilities;

Contract No. C-0329

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, it is agreed between the Utilities and the City as follows:

1. Purpose of Contract. It is the purpose of this Contract to provide for the intergovernmental arrangement required to provide on behalf of the Utilities a fixed and assured amount of flow in the Wynoochee River of untreated water in connection with Washington Nuclear Projects Nos. 3 and 5.

2. Definition of Terms. The following words and phrases used in this Contract shall have the following meanings:

(a) "City" shall mean the City of Aberdeen, a municipal corporation of the State of Washington.

(b) "Utilities" shall mean the Washington Public Power Supply System, Pacific Power & Light Company, Portland General Electric Company, Puget Sound Power & Light Company and Washington Water Power Company.

(c) "Wynoochee Reservoir Project" shall mean that water supply storage project constructed and installed pursuant to the Wynoochee Reservoir Project Contract.

(d) "Wynoochee Reservoir Project Contract" shall mean the contract made as of August 15, 1967, between the United States of America and the City, bearing Contract No. DACW67-68-C-0024, including Amendment No. 1 thereto dated April 17, 1974, and any subsequent amendments to that 1967 contract heretofore or hereafter made.



notify the Utilities as soon as possible that such water will not be available. The City shall undertake all reasonable efforts to secure the resumption of such water flow.

Subject to the other terms of this Contract, the City guarantees and the Utilities are granted by the City rights to the water flow quantities specified in this Contract flowing in the Wynoochee River to which the City has rights up to a maximum amount of 62 cfs.

4. Payment for Water Release.

(a) Washington Public Power Supply System.

On or before June 11, 1980, the System shall pay to the City the sum of \$8,760,000.

(b) Pacific Power & Light Company. On or before June 11, 1980, Pacific Power & Light Company shall pay to the City the sum of \$120,000. Beginning on the date one year following the day of loading of the initial fuel in WNP-3 or WNP-5, whichever is fueled first, Pacific Power & Light Company shall make the first of a series of equal annual payments due on that date for a period of fifteen years. The amount of the annual payment (A) shall be calculated as:

$$A = \$975,000(1.09)^n(.1240588827)$$

where n = number of years from the date of this agreement to day of initial fuel loading.

(c) Portland General Electric Company. On or before June 11, 1980, Portland General Electric Company shall pay to the City the sum of \$60,000. Beginning on the date one year following the day of loading of the initial

fuel in WNP-3 or WNP-5, whichever is fueled first, Portland General Electric Company shall make the first of a series of equal annual payments due on that date for a period of fifteen years. The amount of the annual payment (A) shall be calculated as:

$$A = \$487,500(1.09)^n(.1240588827)$$

where n = number of years from the date of this agreement to day of initial fuel loading.

(d) Puget Sound Power & Light Company. On or before June 11, 1980, Puget Sound Power & Light Company shall pay to the City the sum of \$30,000. Beginning on the date one year following the day of loading of the initial fuel in WNP-3 or WNP-5, whichever is fueled first, Puget Sound Power & Light Company shall make the first of a series of equal annual payments due on that date for a period of fifteen years. The amount of the annual payment (A) shall be calculated as:

$$A = \$243,750(1.09)^N(.1240588827)$$

where n = number of years from the date of this agreement to day of initial fuel loading.

(e) Washington Water Power Company. On or before June 11, 1980, Washington Water Power Company shall pay to the City the sum of \$30,000. Beginning on the date one year following the day of loading of the initial fuel in WNP-3 or WNP-5, whichever is fueled first, Washington Water Power Company shall make the first of a series of equal annual payments due on that date for a period of fifteen years. The amount of the annual payment (A) shall be calculated as:

$$A = \$243,750(1.09)^n(.1240588827)$$

where n = number of years from the date of this agreement to day of initial fuel loading.

(f) Such payments shall constitute full and complete payment for the guaranteed release of water provided for in this contract (and the relinquishment of the City's rights to divert that water for use or consumption) for the duration of this contract, including the Utilities' share in the City's past, present and future capital payments on the Wynoochee Reservoir Project and maintenance and operation expenses in the Wynoochee Reservoir Project to December 31, 2020.

5. Hold Harmless. The Utilities agree to defend and hold harmless the City from any and all claims relating to the release of the water in accordance with this Contract.

6. Term of Contract. This Contract shall continue in effect from the date hereof until December 31, 2020.

If the Utilities give the City written notice by January 1, 2020 that they desire an extension of this Contract, the City agrees to extend this contract for up to an additional 10 years with an additional payment or payments to the City by the Utilities to be mutually agreed upon at that time.

7. Amendments. Any changes, modifications or revisions of this Contract shall be by written agreement of the parties hereto.

8. Notices. Unless otherwise notified in writing of an address change by the other party, any notice given by one party shall be mailed or delivered as follows:

To the City: City of Aberdeen  
Water Department  
200 E. Market Street  
Aberdeen, WA 98520

To the Utilities: Washington Public Power  
Supply System  
3000 George Washington Way  
Richland, WA 99352

EXECUTED as of the date set forth above.

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM

By [Signature]  
Managing Director

PACIFIC POWER & LIGHT COMPANY

By [Signature]  
Title Vice President

PORTLAND GENERAL ELECTRIC COMPANY

By [Signature]  
Title VICE PRESIDENT

PUGET SOUND POWER & LIGHT COMPANY

By [Signature]  
Title Vice President

WASHINGTON WATER POWER COMPANY

By [Signature]  
Title Vice President

CITY OF ABERDEEN

By [Signature]  
Mayor

ATTACHMENT B

**SATSOP COMBUSTION TURBINE PROJECT  
FISH AND WILDLIFE RESOURCES MITIGATION AGREEMENT**

**I. INTRODUCTION**

**A. Parties**

Washington Public Power Supply System (Supply System) is seeking an amendment to the existing Satsop Power Plant WNP-3 and WNP-5 Site Certification Agreement (SCA) from the Energy Facility Site Evaluation Council (EFSEC) to construct and operate the proposed Satsop Combustion Turbine project (Satsop CT Project or Project).

Washington Department of Fish and Wildlife (WDFW) has a mandate to preserve, protect, manage, and perpetuate the state's fish and wildlife resources including habitat. WDFW is a party to the site certification adjudication before EFSEC.

**B. Purpose and Intent**

The Supply System and WDFW (collectively "the Parties") have been involved in discussions and negotiations related to the Project's potential effect upon fish and wildlife resources, including habitat. The Project consists of two natural gas fired turbine electrical generation plants and associated facilities including a water delivery and return system, a 48-mile natural gas pipeline, and a transmission line connection facility. Through this Agreement, WDFW and the Supply System set forth the obligations and restrictions that the Parties intend to have incorporated into the SCA as conditions for the Project should EFSEC recommend that the Project be certified. The obligations and restrictions set forth in this Agreement relate to resources that will be affected by construction and operation of the Project facilities at the Satsop site, and the construction and operation of the approximate 48-mile natural gas pipeline from Vail, Washington to the Satsop site, as these components are proposed at the time of entry of this Agreement. The Agreement does not address issues that may be raised at EFSEC proceedings outside the adjudicative hearing or other Project impacts, if any.



C. Resolution of Issues

The Supply System has undertaken preliminary site impact assessments to identify the major significant impacts expected from construction and operation of the Project facility and gas pipeline. The Parties agree that not all impacts may be known and therefore, the Agreement contains commitments to address currently expected specific impacts and a commitment to principles of impact assessment and mitigation for potential future unknown impacts.

II. SUPPLY SYSTEM COMMITMENTS

A. Satsop Wildlife Mitigation Agreement

Generally, the facility site was primarily disturbed during the construction of the WNP-3 and WNP-5 plants. Mitigation for the original development at the facility site is the subject of the Satsop Wildlife Mitigation Agreement. The Satsop Wildlife Mitigation Agreement was adopted by EFSEC as Resolution No. 275. Nothing in this Agreement is intended to modify the obligations provided for in the Satsop Wildlife Mitigation Agreement.

B. Project Application

The Supply System agrees that the applicable mitigation measures identified in the following sections of its Satsop CT Project Application, as amended, shall be incorporated into the amended SCA as binding commitments: section 1.4 (Mitigation Measures); section 2.10 (Surface Water Runoff); section 2.14 (Construction Methodology); section 2.17 (Study Schedules); section 3.4 (Plants and Animals); and Appendix J (Erosion and Sedimentation Control).

C. Natural Gas Pipeline

The proposed project includes a 48-mile natural gas pipeline from Vail, Washington to the Satsop site. The Supply System shall apply the priority of mitigation principles (avoid, minimize, restore and replace, in that priority order) in its decisions and actions in planning, constructing, operating and maintaining the natural gas pipeline. To effectuate application of the principles, the Supply System shall, prior to construction of the pipeline, create a detailed pipeline construction plan which shall contain, at a minimum, the following wetland, aquatic and upland habitat protection standards. The parties agree that to the extent that one or more of the following standards or requirements cannot be met, the Supply System, WDFW and the Washington Department of Ecology ("WDOE") shall confer on the appropriate standard or requirement to be used.

1. Wetland and Aquatic Standards

a. Timing

(1) All "out of the water" soil or stream bed disturbing activities associated with wetland, stream, or river crossings shall occur during the dry portion of the year, typically late spring through early fall.

(2) Construction related activity within the active stream or river channel and/or within fifty feet of the bank shall be limited to the period of July 1 through September 30. This provision shall supersede any other or inconsistent dates provided in section 1.4 and Appendix J of the pending Application, as amended.

b. Access, Staging, and Ancillary Areas

(1) All equipment crossing a water body must use a construction bridge. Culvert crossings are not allowed.

(2) All equipment bridges shall be designed to pass the maximum flow and be maintained to prevent flow restrictions during the period that the equipment bridge is in place.

(3) The only access roads, other than the construction right of way, which may be used in wetlands are those existing roads that can be used with no modification and no impact on the wetland.

(4) Locate all staging areas, additional spoil storage areas, and other additional work areas at least fifty feet away from the ordinary high water mark or wetland boundary. In no event shall vegetation be cleared between these areas and the water body or wetland. Limit size to minimum needed to construct the wetland or water body crossing.

(5) Refuel all construction equipment at least 100 feet from water bodies or wetland boundaries.

c. Spoil Pile Placement and Control

All spoil material from water body crossings must be placed in the right of way at least ten feet away from the ordinary high water line, or in additional spoil storage areas located as required in paragraph II.C.1.b.(4) of this Agreement. At a minimum, all spoil shall be contained within sediment filter devices.

d. General Construction Procedures

(1) Notify the Departments of Ecology and Fish and Wildlife at least 48 hours prior to commencement of pipe installation activities or blasting within each water body.

(2) In wetlands and riparian areas, limit the construction rights-of-way to fifty feet or less.

(3) In wetlands and riparian areas, vegetation that must be removed shall be cut at ground level, leaving existing root systems intact. Limit pulling of tree stumps and grading activities to those that would directly interfere with trenching, pipe installation and backfill.

(4) If standing water or saturated soils are present, use low ground weight construction equipment and/or operate on prefabricated equipment mats. This provision shall supersede the language in the Application.

(5) Use trench plugs as necessary to prevent diversion of water into upland portions of the pipeline trench.

e. Specific Stream and River Crossing Methods<sup>1</sup>

<u>STREAM NAME</u>	<u>STREAM NO.</u>	<u>METHOD</u>
Fuller Creek	22.0488	Span
Unnamed	22.0489	Bore and Jack or Directionally Drill
Workman Creek	22.0490	Bore and Jack or Directionally Drill
Unnamed	N/A	Standard dry method with berms
Unnamed	22.0520	Standard dry method with berms
Chehalis River	22.0190	Bore and Jack or Directionally Drill
Unnamed	N/A	Standard dry method with berms
Sand Creek	22.0534	Standard dry method with berms
Mox Chehalis Creek	22.0533	Bore and Jack or Directionally Drill
Unnamed Trib.	22.539	Standard dry method with berms
Unnamed Trib.	14.0018	Standard dry method with berms
Unnamed Trib.	N/A	Standard dry method with berms
Kennedy Creek	14.0012	Standard dry method with berms
Unnamed	N/A	Standard dry method with berms
Unnamed	N/A	Standard dry method with berms
Swift Creek	13.0139	Standard dry method with berms

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<sup>1</sup>Subject to engineering feasibility and Army Corps of Engineer requirements.

Cedar Flats Creek	13.0141	Bore and Jack or Directionally Drill
McLane Creek	13.0138	Standard dry method with berms
Unnamed Trib.	13.0132	Standard dry method with berms
Black Lake Drainage	13.0030	Bore and Jack or Directionally Drill
Unnamed	N/A	Standard dry method with berms
Unnamed	23.0694	Standard dry method with berms
Deschutes River	13.0028	Attach to county road bridge
Unnamed	N/A	Standard dry method with berms

f. Hydrostatic Testing

(1) Perform 100 percent radiographic inspection of all section welds prior to installation under water bodies or wetlands.

(2) Screen the intake hose (1/8" mesh) to prevent entrainment of fish. The maximum approach velocity shall not exceed 0.4 feet/second.

(3) At least thirty days prior to use, provide to EFSEC a list of specific locations proposed for withdrawal and discharge of hydrostatic test water and allow EFSEC to review and comment on the list in consultation with WDFW and WDOE.

(4) Notify those same agencies of intent to begin using specific sources at least 48 hours prior to testing.

(5) Maintain adequate flow rates at all times to protect aquatic life and provide for all other water body uses, including downstream withdrawals.

(6) Hydrostatic test manifolds shall be located outside wetlands and riparian areas.

(7) Regulate discharge rate and use energy dissipation device(s) in order to prevent erosion of upland areas, stream bottom scour, suspension of sediments, or excessive stream flow.

g. Restoration, Stabilization, and Revegetation

(1) Immediately after pipeline crossing, placement to a minimum depth of one (1) foot of clean, round spawning gravel must be done in all disturbed streambed areas.

(2) Placement and securing of acceptable instream fish cover features at a maximum interval of ten (10) feet along disturbed banks must be done on both sides of the stream. Instream cover features shall be woody debris including root wads

or well-branched triple tree top bundles with the following specifications:

<u>Stream Toe Width</u>	<u>Root Wad Dia. and Attached Trunk Length</u>	
Up to 10 feet	2 feet	5 feet
10 to 40 feet	3 feet	10 feet
More than 40 feet	4 feet	15 feet

<u>Stream Toe Width</u>	<u>Tree Top Dia. and Length</u>	
Up to 10 feet	4 inches	5 feet
10 to 40 feet	6 inches	10 feet
More than 40 feet	8 inches	15 feet

(3) The instream cover features shall project into the low-flow water margin a minimum of the diameter of the required root wad.

(4) Suggested native species that may be used for revegetation in emergent wetlands include:

- slough sedge (*Carex obnupta*)
- American bulrush (*Scirpus americanus*)
- small-fruited bulrush (*Scirpus microcarpus*)
- Watson's willow herb (*Epilobium watsonii*)
- spike rush (*Eleocharis palustris*)
- cattail (*Typha latifolia*)
- speedwell (*Veronica*, spp)
- mint (*Mentha arvensis*)
- cut-leaved water horehound (*Lycopus americanus*, L. unifora)
- angelica (*Angelica*, spp.)
- water parsley (*Oenanthe garmentosa*)
- cow parsnip (*Heracleum lanatum*)

h. Right-of-Way Maintenance Practices

(1) Do not use herbicides or pesticides in or within 100 feet of a water body.

(2) Vegetation maintenance practices over the full width of the permanent right of way in wetlands and riparian areas are prohibited. However, to facilitate periodic pipeline surveys, a corridor centered on the pipeline up to ten feet wide may be maintained in a herbaceous state. In addition, trees that are located within fifteen feet of the pipeline and are greater than fifteen feet in height may be selectively cut and removed from the right of way.

(3) Monitor the success of wetland and riparian revegetation annually, with written reports to EFSEC and copies to WDFW and WDOE, for the first five years after construction. Revegetation of areas which are currently vegetated with native species is considered successful if the native herbaceous and/or woody cover is at least eighty percent of the total cover, and native species diversity is at least fifty percent of the diversity originally found in the wetland. If revegetation is not successful at the end of five years, the project sponsor shall develop and implement (in consultation with a professional wetlands ecologist and the Departments of Ecology and Fish and Wildlife) a plan to actively revegetate the wetland with native wetland herbaceous and woody plant species.

(4) Develop specific procedures to prevent the invasion or spread of undesirable exotic vegetation.

2. Upland Standards

a. Retain selected oak in protected "islands" within right of way.

b. Plant standard size apple and crabapple or other appropriate fruit producing trees along right of way in selected locations, more than fifteen feet from centerline of pipe.

c. Retain snags and allow for snag recruitment. Retain and replace down woody material.

D. Other Plans

1. The Supply System agrees to develop the following plans and to consult with WDFW during the development and review of the plans:

- a. Environmental Protection Control Plan/Construction Management Plan(s)
- b. Erosion and sediment control plan.
- c. Blasting plan.
- d. Restoration of ROW plan including restoration and maintenance practices, schedules, monitoring methods, contingencies, and noxious weed control measures.
- e. Construction water use and control plan.
- f. Right of Way Management Plan.
- g. Storm water control plan during construction.

2. In addition, WDFW shall be provided with the following plans in accord with standard EFSEC procedures:

- a. Petroleum and toxic material; handling, storage, and spill response plan.
- b. Long-term storm water control plan.

E. Future Impact Assessment and Mitigation

The Parties agree that the principles of impact assessment which have been applied to the currently expected impacts and which shall be applied to all unforeseen impacts are, in descending order of importance, 1) avoid the impact wherever possible; 2) minimize the impact; 3) provide on-site, in-kind mitigation; and lastly, 4) provide off-site compensatory mitigation.

WDFW and the Supply System agree that, to the extent impacts to fish and wildlife habitat cannot be avoided in the construction and operation of the Project, the impacts will be mitigated as follows:

1. Wetland Habitat

a. Wetland restoration, creation and enhancement will not result in a net loss of wetland acreage and functions.

b. In-kind replacement of functions and values is preferred.

c. Where in-kind replacement is not feasible, substitute resources of equal or greater ecological value will be provided.

d. For wetlands filled and lost, wetland acreage shall be replaced by creation at a 3 to 1 replacement ratio by wetland type (ratio to be doubled for enhancement of existing wetlands).

e. For wetlands that are disturbed but not lost, the following shall apply:

(1) Forested Wetlands. Disturbance impacts to forested wetlands shall be mitigated by both: restoration of the disturbed area to either forested wetland or scrub/shrub wetland; and either replacement with other forested wetland (restoration or creation) in an amount equal to the disturbed area, or enhancement of disturbed emergent herbaceous wetland to forested wetland in amount equal to twice the disturbed area.

(2) Scrub/Shrub Wetlands. Disturbance impacts to scrub/shrub wetlands shall be mitigated by both: restoration of the disturbed area to scrub/shrub wetland; and either replacement with other scrub/shrub wetland (restoration or creation) in an amount equal to one-half the disturbed area, or enhancement of disturbed emergent wetland to scrub/shrub wetland in an amount equal to the disturbed area.

(3) Emergent Wetlands. Disturbance impacts to emergent herbaceous wetlands shall be mitigated by restoration of the disturbed areas to native emergent herbaceous wetland.

(4) Monitoring. A five year monitoring plan shall be developed to assess mitigation success. For those restoration, creation or enhancement areas that do not meet the success standards provided in paragraph II.C.1.h.(3) of this Agreement after five years, additional replacement shall be provided as follows: an amount of forested wetland equal to three times the unsuccessfully restored forested wetland areas; and an amount of scrub/shrub or emergent wetland equal to two times the unsuccessfully restored scrub/shrub or emergent wetland areas.



f. A minimum five-year monitoring and contingency plan shall be required for all wetland impact and mitigation actions.

g. Development of the wetland compensatory mitigation plan will be based on the format and checklists specified in Ecology Publication #94-29, Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals.

## 2. Upland Habitat

### a. Forest Habitat

(1) For forest areas that are cleared and that cannot be restored to forest habitat, mitigation shall be by replacement of forest habitat (restoration or creation) in an amount equal to twice the unrestored forest area.

(2) For forest areas that are restored in place to forest habitat, mitigation shall be by restoration or creation of additional forest habitat in an amount equal to one-half the restored forest area.

(3) In either (1) or (2) above, planting of trees in formerly disturbed herbaceous sites (such as abandoned agricultural fields) shall qualify.

### b. Shrub Habitat

(1) For shrub areas that are cleared and that cannot be restored to shrub habitat, mitigation shall be by replacement of shrub habitat (restoration or creation) in an amount equal to twice the unrestored shrub area.

(2) For shrub areas that are restored in place to shrub habitat, mitigation shall be by restoration or creation of additional shrub habitat in an amount equal to one-half the restored shrub area.

(3) In either (1) or (2) above, planting of shrubs in formerly disturbed herbaceous sites (such as abandoned agricultural fields) shall qualify.

### c. Prairie and Native Oak Forest

The Supply System shall fund, design and implement an off-site prairie restoration project in Thurston County to restore lost prairie habitat values. The specific location of the prairie enhancement efforts shall occur on existing public lands identified by the Prairie Landscape Working Group. The project shall consist of the following two actions:

(1) A controlled burn or mechanical removal (mowing) to accomplish the initial removal of scotch broom on an area of existing prairie equal to two times the area of prairie habitat affected by pipeline construction activities; and

(2) Removal of invading conifer growth on 25 acres of established native oak forest.

d. Herbaceous Habitat

Disturbance impacts to herbaceous habitat shall be mitigated by restoration of the disturbed areas in place with safeguards against weedy invasive species.

3. Management Plans

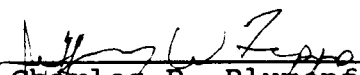
a. The Supply System shall develop management plans that will assure the protection and enhancement of wildlife values on the lands that are acquired to replace lost wetland and upland wildlife habitat values. The management plan shall be fully implemented within five years of the commencement of operation of the Project. The Supply System shall provide a draft of the management plans to EFSEC in consultation with WDFW.


b. Cost reimbursement for matters identified in this Agreement shall be in accordance with section II.E.1 of the SCA.

III. WITHDRAWAL OF OBJECTIONS

Based upon the above commitments made by the Supply System, WDFW stipulates to the withdrawal, from the adjudicative hearing, of its issues identified as C.1 through C.54 of the Final Consolidated Issues List filed with EFSEC and dated June 22, 1995. WDFW specifically reserves the right to raise issues in EFSEC proceedings outside the adjudicative hearing.

DATED this 1<sup>st</sup> day of <sup>August</sup> ~~July~~, 1995

  
Charles R. Blumenfeld  
Jeffrey W. Leppo  
Karen M. McGaffey  
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Public Power Supply System

  
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Assistant Attorney General  
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Department of Fish and  
Wildlife